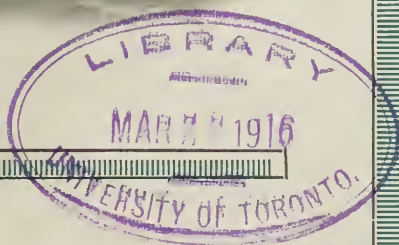


science  
M

TWENTY-NINTH  
ANNUAL REPORT  
*of the* BOARD OF TRUSTEES *of the*  
PUBLIC MUSEUM



*of the* CITY OF MILWAUKEE

SEPTEMBER 1, 1910 to DECEMBER 31, 1911

MARCH 15, 1916.



TWENTY-NINTH  
ANNUAL REPORT  
*of the*  
BOARD OF TRUSTEES  
*of the*  
PUBLIC MUSEUM



*of the*  
CITY OF MILWAUKEE

---

SEPTEMBER 1, 1910, TO DECEMBER 31, 1911

---

MARCH 15, 1916



## BOARD OF TRUSTEES.

---

### CITIZENS APPOINTED.

Robert P. Wheeler.....Term expires May 1915  
Rev. Frederick Edwards.....Term expires May 1914  
E. W. Windfelder.....Term expires May 1913  
Robert Nunnemacher .....Term expires May 1912

### ALDERMEN APPOINTED.

E. T. Melms .....Term expires May 1912  
C. L. Weiley.....Term expires May 1912  
Henry Smith .....Term expires May 1912

### EX-OFFICIO.

C. G. Pearse, Sup't of Schools.....Term expires July 1913  
E. L. Richardson, Pres't of School Bd...Term expires July 1912

### OFFICERS.

Robert Nunnemacher, President.  
Henry L. Ward, Secretary, Ex-officio.

## COMMITTEES.

### EXECUTIVE.

Rev. Frederick Edwards, Chairman,  
R. P. Wheeler,  
C. G. Pearse,  
C. L. Weiley,  
Robert Nunnemacher, Ex-off.

### PURCHASING.

E. W. Windfelder, Chairman,  
Rev. Frederick Edwards,  
C. L. Weiley

### FURNITURE.

E. L. Richardson, Chairman,  
C. G. Pearse,  
E. T. Melms.

### EXCHANGING.

R. P. Wheeler, Chairman,  
E. L. Richardson,  
Henry Smith.

### RULES.

C. G. Pearse, Chairman,  
E. T. Melms,  
Rev. Frederick Edwards.

### BUILDING.

Henry Smith, Chairman,  
E. W. Windfelder,  
R. P. Wheeler,  
Robert Nunnemacher, ex-officio.

### FINANCE.

E. T. Melms, Chairman,  
Henry Smith,  
E. W. Windfelder.

Henry L. Ward, advisory member of all committees.

## HONORARY CURATORS.

---

Albert von Hoffmann.....	Archeology
Chas. E. Monroe .....	Paleontology
A. J. Schoenebeck, Lena, Wis. ....	Oölogy
August Stirn .....	Ornithology
E. W. Windfelder.....	At large
Ferdinand Meinecke .....	At large
Geo. A. West .....	At large

---

## MUSEUM SERVICE.

### ADMINISTRATION.

---

Henry L. Ward.....	Director and Secretary of Board of Trustees
Carl Thal .....	Acting Secretary of Board, on occasion
Harry F. Buenger .....	Recorder
Wm. B. Brickner .....	Clerk and Printer
Herve E. Swain .....	Stenographer

### PUBLIC INSTRUCTION

(Until July 1911)

Alfred C. Burrill, B. S. ....	Lecturer
A. C. Katze-Miller.....	Guide Lecturer
Leo P. Falconer .....	Messenger

(From September 1911)

Prof. Wm. J. Brinckley, B.A., M.A., M.S., Ph.D. ....	Lecturer
Ellen Torrelle, A.B., M.A. ....	Associate Lecturer
Capt. Geo. D. Phinney .....	Lantern Operator

### ANTHROPOLOGY.

S. A. Barrett, B.S., M.S., Ph.D. ....	Curator
B. H. Brah .....	Assistant

**MAMMALS, BIRDS, PALEONTOLOGY, GEOLOGY AND  
MINERALOGY.**

Henry L. Ward .....Curator  
George Shrosbree .....Chief Taxidermist  
Paul C. Rohde .....Assistant Taxidermist  
Herbert L. Stoddard .....Assistant Taxidermist

**INVERTEBRATE ZOOLOGY, LOWER VERTEBRATES AND  
BOTANY.**

S. Graenicher, Ph.D., M.D. ....Curator  
R. A. Muttkowski .....Assistant  
Herbert Clowes .....Modeler

**LIBRARY.**

Carl Thal .....Curator of Books

**EXHIBITION ROOMS.**

Henry E. Eichfeld, Lydia Nehrling, Alice Pluck and  
Frank Tobin .....Attendants

**JANITOR SERVICE.**

Phillip J. Pier .....Janitor  
Paulina Laur, Minna Meyer, Elizabeth Stockinger.....Cleaners

**ENGINEER SERVICE**

(Jointly for Museum and Library.)

Fred C. Ruck .....Chief Engineer  
Fred. W. Kanitz and Wm. J. Winkel.....Assistant Engineers  
Nicholas Feltes, G. T. Serles, O. T. Logan.....Fireman  
Enrico Marchi .....Coal Passer  
Wm. Tellier .....Laborer

**CONSTRUCTION WORK.**

T. S. Watson & Co. ....Superintendents  
A. C. Posson .....Inspector



GROWTH OF  
**SPACE OCCUPIED  
BY EXHIBITS**

1899

MUSEUM-LIBRARY BUILDING

38111 SQ FT

1884

EXPOSITION BUILDING  
7000 SQ FT

1883

GERMAN-ENGLISH  
ACADEMY

2500 SQ FT

FROM THE MILWAUKEE BUDGET EXHIBIT.



## REPORT OF THE PRESIDENT OF THE BOARD OF TRUSTEES.

MILWAUKEE, Wis., Sept. 26th. 1911.

*To the Honorable, the Common Council of the City of  
Milwaukee:*

Gentlemen—The Board of Trustees of the Public Museum submits to you this report on the affairs of the museum for the year ending August 31st, 1911, which is its twenty-ninth annual report.

During this period the board has held twelve regular monthly meetings and seven special or adjourned meetings, besides which its committees have had thirty-four sessions of which twenty-one were of the building committee.

The finishing of the addition to the building has received the most serious attention of the trustees and occupied much of their time, but the delays experienced by the board have materially interfered with the rapid completion of this work. While it would have been financially possible to have entered into a number of contracts early in December last, it was not until the middle of March that we succeeded in obtaining the first drafts of the necessary plans and specifications for some parts of this work. However, no considerable number of contracts could have been let until the proceeds of the issue of \$150,000.00 of bonds were available, which was not until May.

The first contracts were made late in June, since when the work on the building has been steadily accelerating and is now proceeding at a rapid rate, which gives promise of its completion by early spring.

The congestion of the old building has precluded any considerable amount of improvement in the exhibits and has reached a point where new work can no longer be prepared and stored for future installation. It is hoped that the work

and storage rooms in the upper floor of the addition may be available about the first of the ensuing calendar year, thus permitting the preparation necessary for the occupancy of the new building.

The educational work of the museum has been somewhat enlarged during the year. Besides the usual instruction given to public school children at the museum, which this year reached 26,546 pupils from the fifth to the eighth grades, inclusive, who were lectured to in classes at the museum, and the loaning of specimens to schools for class room work, botany and bird classes for adults were organized in April and held on Saturday afternoon throughout the remainder of the season. The attendance at these classes totaled 730 ladies and gentlemen. As soon as the conveniences of the new building are at our disposal it is intended to increase the number of such classes and also to provide public lectures, which shall make the contents of the museum much more intelligible to these audiences than it could be made to the average citizen by means only of the necessarily brief museum labels.

The numbers of specimens belonging to the museum have been considerably augmented during the year: largely by means of collections made by members of the museum staff and by gifts. At the end of August the inventory stood as follows:

Mineralogical and geological specimens .....	8,826
Paleontological specimens .....	15,506
Botanical specimens .....	32,158
Zoological specimens .....	225,701
Anthropological specimens .....	33,983
Arms, armors, carvings and other objects contained in the Rudolph J. Nunnemacher collection.....	3,453
Coins, bank notes, medals, etc. ....	3,126
Lantern slides .....	2,504
Books, pamphlets, maps, etc. ....	18,513

---

343,770

The gain during the year over all discarded or otherwise disposed of items was 17,420 specimens, 1,220 books and pamphlets and 102 lantern slides.

The financial statements for the year are:

## PUBLIC MUSEUM FUND.

Balance on hand Sept. 1st, 1910 .....	\$ 17,060.73
Appropriation of 1-7 mill made Jan. 1st, 1911.....	35,367.59
Appropriation from School Board.....	2,500.00
	<hr/>
	\$ 54,928.32
Disbursements (less refunds) .....	34,206.23
	<hr/>
Balance on hand Aug. 31st, 1911 .....	\$ 20,722.09

## HISTORICAL MUSEUM FUND.

Balance on hand Sept. 1st, 1910 .....	\$ 28,992.05
Appropriation of 1-5 mill made Jan. 1st, 1911.....	49,514.63
Proceeds from sale of \$150,000.00 bonds.....	154,860.79
	<hr/>
	\$233,367.47
Disbursements (less refunds) .....	60,015.73
	<hr/>
Balance on hand Aug. 31st, 1911.....	\$173,351.74

## RUDOLPH J. NUNNEMACHER FUND.

Balance on hand Sept. 1st, 1910.....	\$ 1,244.96
Donated by members of the Nunnemacher family. Now deposited at interest with the Nunnemacher estate .....	2,000.00
Interest on \$1,000.00 of original fund remaining in custody of the Nunnemacher estate until April 8th, 1911 .....	63.47
	<hr/>
	\$ 3,308.43
Disbursements for purchase of specimens.....	160.00
	<hr/>
Balance on hand Aug. 31st, 1911.....	\$ 3,148.43

Greater details of the affairs of the museum will appear in the director's report which will issue sometime after the close of the museum's year, lately fixed by the trustees to hereafter correspond with the calendar and usual financial year of other city departments.

Public interest in the museum has grown apace with its enlarging activities and our experience with adult classes has shown that they fill a niche in the educational life of the community, warranting the considerably greater development of this work that will be undertaken when suitable facilities have been provided in an enlarged building and increased museum staff.

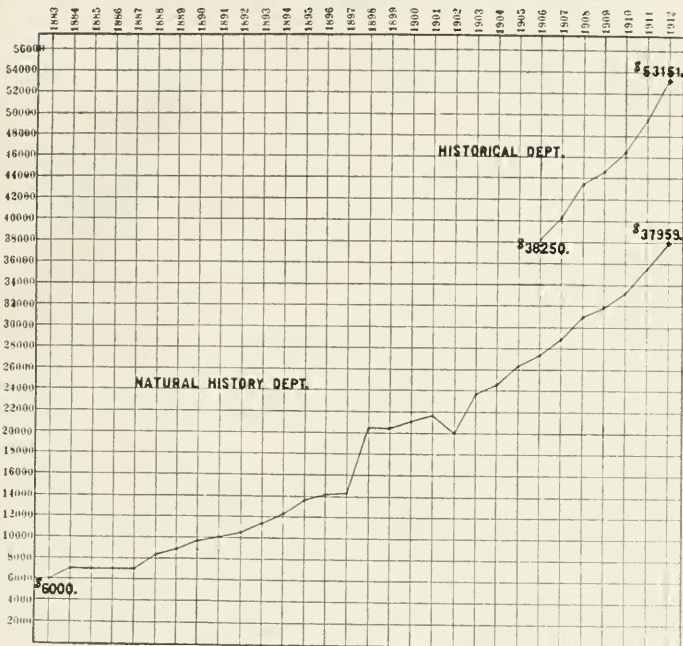
The Board of Trustees desires to extend its thanks to all those who by donations of money or specimens have aided in the upbuilding of this scientific institution for the people of Milwaukee.

Respectfully submitted,

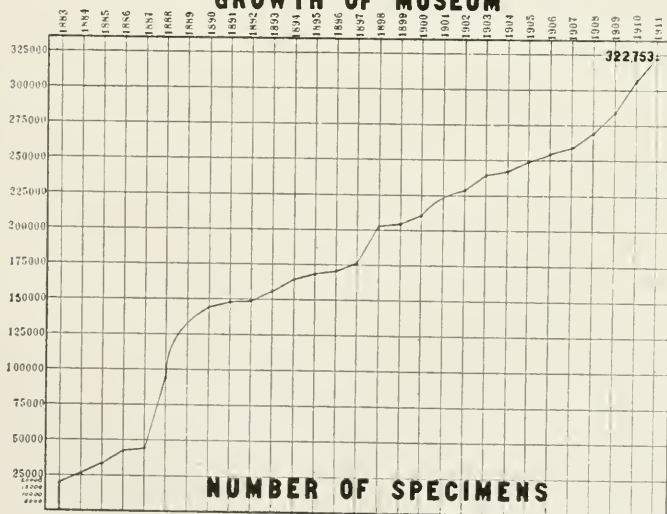
ROBERT NUNNEMACHER,

President Board of Trustees.

# MUSEUM APPROPRIATIONS



# GROWTH OF MUSEUM



FROM THE MILWAUKEE BUDGET EXHIBIT.





## REPORT OF THE DIRECTOR OF THE MUSEUM TO THE BOARD OF TRUSTEES.

Gentlemen—Heretofore the museum year has ended on August 31st, but by recent action of your board this date has been changed to Dec. 31st in order that it may conform to that of other city departments. Consequently the following report covers the sixteen months extending from Sept. 1, 1910, to Dec. 31, 1911, and therefore the data contained therein cannot be directly compared with that of previous annual reports which uniformly cover but twelve months.

Part of this report was prepared soon after the close of the year 1911, but its completion for printing has been delayed until February, 1916, because of the press of more important work. It is hoped that the intervening reports may issue shortly.

Chief among the advantages in the making up of reports that we anticipate to derive from this change of date is that usually all field work will have ceased, the collections made by expeditions will have reached the museum and have been largely recorded, and curators can, therefore, more easily summarize the work of their departments and more advantageously devote time to the writing of their various reports.

The past sixteen months have been very busy ones in many lines. Conditions of congestion in the work rooms have been such that we have particularly welcomed the opportunity to put a number of our staff into the field while personally, except for our usual attendance at the meeting of the American Association of Museums and two short visits to collecting expeditions in the field, we stayed on the job doing what we could to expedite the construction work of the addition.

An unusual amount of clerical work has fallen on me during the past sixteen months. There have been held sixteen

regular, one adjourned and seven special meetings of the Board, and forty-seven meetings of the various committees. Twenty-nine of the latter were of the building committee. The preparation of subjects for the consideration of these seventy-one meetings, the writing of formal reports on work accomplished and the formulating of recommendations to be laid before many of them, the keeping of detailed minutes of all, and the writing of reports of all committee meetings for presentation to the Board have consumed much time.

Budgets for 1911 and 1912 have been requested and prepared and, as at the beginning there was no comparable data upon which to base estimates, it was necessary to analyze accounts for a year back in order to obtain actual costs for divisions quite different from those of the museum's accounting system. The form required for the second budget differed so much from the first that the work done on that was of little assistance. An itemized, priced inventory of all museum property has been prepared for the Comptroller requiring the searching of the accounts for cost of all apparatus, cases and other furniture, machinery, etc., purchased since the founding of the institution. On account of differences between the board, the architects, and the contractors, some of these matters, together with their documentary evidence, were by direction of your board, turned over to the city attorney for advice and assistance, and in order that these should be intelligible to the assistant having this in charge it was necessary to prepare and furnish him with a lengthy series of analyses of directions given, work done and of accounts connected therewith. Other reports along similar lines have from time to time been prepared for the information of the Board, as have special reports on the duties of the staff, condition of the collections, suggestions for the development of the educational department, etc., when demanded. One of these, entitled "Report on the Contents of the Anthropological Collections, Excepting Numismatics, of

the Public Museum of the City of Milwaukee. With Recommendations as to Their Future Development." has been ordered printed as a ten-page pamphlet. Much of my spare time, including evenings and Sundays, is being occupied in the preparation of a longer analysis of the present status and future development of the natural history collections. These reports have been mainly a weariness of the flesh, as they have supplanted the to me much more important planning of reconstructed exhibits, cases, etc., which should now be well in hand, but which have not yet been started.

#### BUILDING.

The construction of the addition has moved toward completion. It is now entirely enclosed and with a number of radiators temporarily set has been kept under steam heat from the new plant since Dec. 8th, 1911, so that the plastering can safely progress. The various structural difficulties and omissions, mentioned in the last report, have been remedied at a cost of \$19,426.42, and it is believed that no suspicion of weakness still clings to the work.

The issue of \$150,000.00 of bonds for construction purposes, which was omitted from last year's budget, found a place in that of this year, and their sale produced \$155,001.00, from which all cost of printing, advertising, etc., amounting to \$140.21, was deducted, giving the fund a net credit with the city treasurer of \$154,860.79. The sinking fund of \$7,500 and the yearly interest on the outstanding bonds must be paid to the city treasurer annually from the Historical Museum fund until the bonds are all retired at the end of twenty years.

The cost of the addition, as far as it is now known is,

Cost of additional land.....	\$ 30,677.09
Paid on construction to Dec. 31, 1911.	244,743.77
Amount of unfinished contracts.....	98,408.93
	<hr/>
	\$373,829.79

No contracts have as yet been let for window trimmings, doors or floors, nor have estimates on the same been made, so that the final cost of construction is as yet problematical.

The repairs to the old building have consisted of mending the copper work on the main roof, the mending of the iron roof of the boiler room, renewing some mouldings of window sash and refinishing in varnish all of the interior woodwork.

The chief engineer, Mr. Ruck, has devoted a considerable amount of time to the making of plans and specifications for the new power plant, which necessitates a change of location for the engine room, thereby bringing it into closer proximity to the boiler room. With the exception of some minor alterations the work has been executed along the lines mapped out by him.

The report of the power department shows the following data for the calendar year 1911:

Kilowatt hours of the three engines.....	332,627
Hours run of the library elevators.....	7,326
(That of museum dismantled.)	
Hours run of ventilating fans.....	8,539
Coal consumed, pounds.....	2,823,650
Ashes from furnaces, pounds.....	383,202
Per cent of ash .....	13.7
*Hours work of engineers in building outside of department .....	818

#### Operating Expenses:

Salaries .....	\$ 7,150.00
Coal .....	3,275.63
Oil and supplies .....	372.18
Repairs .....	115.63
Removing ashes .....	110.00

---

Total .....\$11,023.44

\*707 hours were for the library and 111 for the museum.

**STAFF.**

Two long needed additions have been made to the office force. The position of recorder was created to combine the function of recording accessions with the general business duties of the director's office, such as bookkeeping, purchasing of supplies, etc., and was filled by competitive city service examination on March 1, 1911, the highest standing being given to Mr. H. F. Buenger. A stenographer, who can attend to most of the correspondence of the main office as well as of the several departments, was also added at the same date in the person of Mr. Herve E. Swain.

There has been a complete change in the personnel of the lecture division. Mr. Burrill, lecturer, left July 5th on a year's leave of absence to take up a position in the entomological department of the college of agriculture of the state university. Mr. Katze-Miller, guide lecturer, resigned in August to again take a place in the public school system, and Leo Falconer, messenger, who operated the projecting lantern, left in May.

Prof. Wm. J. Brinckley, B.A., M.A., M.S., Ph.D., of Lawrence College, was selected to take Mr. Burrill's place for the year, and Miss Ellen Torrelle, A.B., M.A., late teacher of biology and dean of Milwaukee-Downer College, was chosen to occupy the position vacated by Mr. Katze-Miller. Capt. Geo. Phimney was selected to run the projection lantern and otherwise assist in the work of the division.

Since April, 1910, the general inspection of construction work on the addition has been attended to by A. C. Posson, who is in the employ of the Board. Notwithstanding Mr. Posson's continuous services, probably more than half of the director's time was also occupied directly with details of this construction work and a considerable amount of that remaining was taken up by affairs of the Board, leaving little time to devote to regular museum matter, so that in March he felt

compelled to request the Board to "relieve him from the onerous duties entailed in looking after the affairs of the new building by appointing a superintendent of building". In conformity with this request Thos. S. Watson & Co. were employed by the Board as Superintendents of Construction by resolution of Sept. 19, 1911, and have since so functioned.

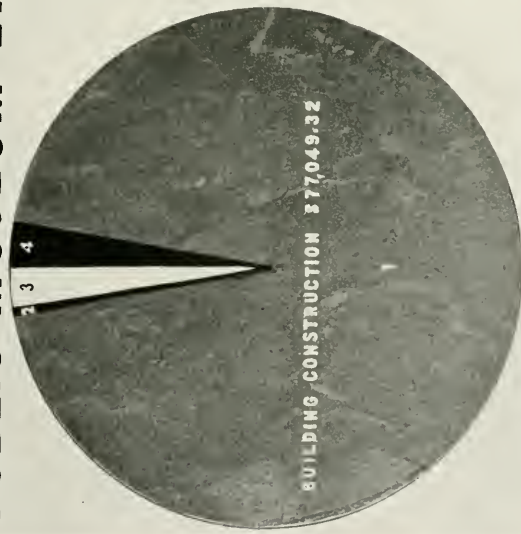
At a special meeting of the Board, held in February, 1911, to consider the director's suggestion of attempting to secure a larger tax percentage for the museum, he outlined some of its needs of an increased staff as: an organizer and leader of natural history clubs and two assistants; a museum guide or docent; a curator of geologic sciences; a curator of botany; an artist; a mechanic-carpenter; an elevator operator; an assistant janitor; a night watchman: one check room, one toilet room and two exhibition room attendants. The Board considered it inadvisable to ask for an increase in tax rate at that time, but passed a resolution "that we proceed to give Mr. Ward the assistants asked for, person by person, as the appropriations will allow".

At the direction of the board I submitted to you, in my monthly report of Dec. 1911, an outline of the general duties of the members of the staff, and for your convenience it is herewith put into more permanent form:

#### ADMINISTRATION.

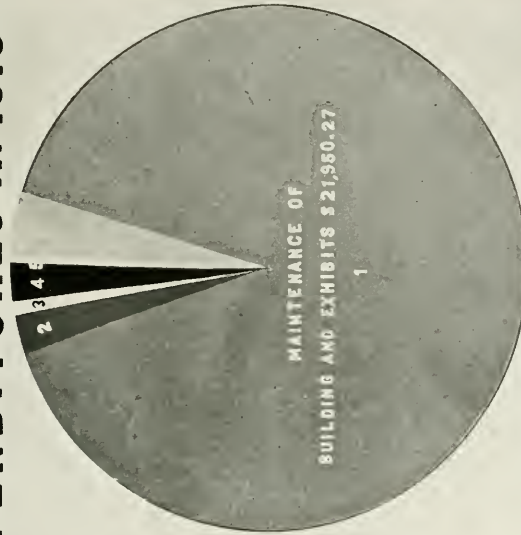
"Director H. L. Ward—Has the general business of the museum to attend to: the receipt, answering or other disposal of a moderate sized correspondence, not a few of which letters require some investigation before replying; the interviewing of a very considerable number of visitors on many kinds of business: the talking on the telephone to a good many people wishing all sorts of information; writing of reports of various kinds as Museum's Annual Report, numerous reports called for by the city attorney's office, reports asked for by

# PUBLIC MUSEUM EXPENDITURES IN 1910



**HISTORICAL DEPARTMENT \$81,682.98**

- 2 FURNITURE AND EQUIPMENT \$ 308.35
- 3 INCREASE OF COLLECTIONS 1955.81
- 4 MAINTENANCE OF EXHIBITS 2369.50



**NATURAL HISTORY DEPT. \$34,570.38**

- 2 EDUCATION \$3,093.31
- 3 FURNITURE AND EQUIPMENT 929.37
- 4 INCREASE OF COLLECTIONS 2472.11
- 5 PUBLICATION 548.95
- 6 ADMINISTRATION 5576.37







the Trustees; the advising with and directing of the several curators, taxidermists, lecturers, etc. (some of whom complain of their inability to see him for days at a time). Not infrequently several days pass between his visits to any part of the museum other than the office; though he recognizes that it would be decidedly advantageous to the museum were he to make even more than one daily round. In the matter of exhibits in all departments it is desirable that he should, and he usually does, consider with the curators the particular objects to be attained by each exhibit, how best to attain these objects, and all important labels are gone over by him both in copy and in proof in order that their wording may be as nearly as correct as possible and the important facts or theories expressed in a manner intelligible, clear and interesting to untechnical readers. He has all of the work connected with the department of Mammals, Birds, Fossils, Mineralogy and Geology except the doing of the taxidermic work, and whatever untrained, occasional and generally highly unsatisfactory assistance he may secure from others in the clerical end of this work. The result is that there are now on hand approximately 1,500 bird skins that require identifying, recording and labeling, probably 200 mammal skins requiring the same treatment, a considerable number lately recorded by an assistant to be picked out from the collections and labels and records corrected. Also considerable numbers of minerals, rocks and fossils are as yet unidentified, unlabeled and unrecorded. Not a few of the specimens on exhibition are without labels, and others long on exhibition are known to be erroneously labeled, but there has been no time to attend to these matters. Has to write all the labels for exhibits in his special departments, frequently with the knowledge that he cannot give sufficient time to do the subjects justice, lectures occasionally, attends to most newspaper reporters, tries to interest people to donate specimens or money to museum, the latter with but poor results.

Besides this work for the museum proper he is secretary of the Board and its committees, which involves in various ways some considerable amount of time consuming work in the matter of minutes of Board, monthly reports to Board, meetings of Board and committees, writing of letters to contractors, writing of contracts, etc. To the best of his knowledge he is the only museum director having such diversified duties.

Like the Episcopalians he must confess to leaving undone many things that he ought to do; and that often it is very difficult to maintain the fairly even temperament that is required in handling a number of fellow employes and preserving an optimistic view of the situation.

Recorder H. F. Buenger—Attends to receipt of specimens; their entry into the accession book and their distribution to departments; purchase and receipt of supplies with consequent scanning of prices; prepares bills and financial statements for Board; keeps the account books in much greater detail than they were ever formerly kept; relieves the director from most of the supervision of the janitor force; does the larger part of outside errands; has made and is maintaining a detailed inventory of all museum property other than specimens, which now consists of 3,430 separate articles; with the assistance of the director gets out budgets; makes statements of accounts as required; lists of supplies wanted with prices for Board meetings; answers telephone and attends to wants of callers as far as possible.

Stenographer H. E. Swain—Does the bulk of the stenographic, typewriting and duplicating work for the office and for the several departments.

Special Clerk William B. Brickner—Does the greater part of the museum printing; makes original entries of publications received; gives out most of loans to schools; keeps records of same and checking back when returned; attends to

stenographic and typewriting work when same is greater than can be attended to by stenographer alone, writes out pay rolls and checks.

#### LIBRARY.

Curator of Books Carl Thal—Attends to library, card cataloguing and analyzing contents of books by Field-Haviland system, keeping track of exchanges and following up with letters when necessary; assists others in the use of the library.

#### EDUCATION.

Lecturer W. J. Brinckley—Prepares subject matter and selects lantern slide illustrations for school lectures, three of which he delivers daily during school days. Saturday afternoon has Bird Class at Museum. Gives occasional lectures outside to high schools, etc.

Lecturer Ellen Torelle—Prepares subject matter and selects specimens for illustrations for school lectures, three of which she delivers daily during school days. Occasionally gives talks before clubs, etc. Is carrying on work on the Protozoa of the region.

Lantern Operator G. D. Phinney—Operates lantern for Professor Brinckley's lectures. Steers classes to the two lecture rooms: Saturday mornings takes Eichfeld's place on the third floor; does odd jobs as required.

#### HISTORICAL DEPARTMENT.

Curator of Anthropology S. A. Barrett—Has general charge of everything in this department, which includes all the works of man. Department in chaotic condition when he took hold, necessitating a complete revision of the records of about 33,000 specimens then on hand, about 11,000 added

since. Has spent seven months of the twenty-seven that he has been on the staff collecting in the field with good results. Determines specimens, oversees their marking and recording; furnishes copy for all labels of his department; plans and oversees arrangement of all exhibits of same, carries on part of correspondence of the department (the balance handled by the director), writes for the Museum Bulletin, lectures occasionally; gives information to visitors especially desiring same and to museum's lecturers; furnishes director with monthly detailed report on work of department and advises with him on desirability of purchasing for same.

Assistant in Department of Anthropology B. Brah—Does most of the clerical work of numbering and recording specimens; cleans and poisons such as require it; unpacks or repacks specimens received or to be returned; does most of manual work of installing exhibits or putting specimens into storage, and assists in numerous ways; besides which he spends nine hours per week away from the department on floor duty.

#### DEPARTMENT OF INVERTEBRATE ZOOLOGY.

Curator S. Graenicher—Has general charge of all collections of invertebrate animals, of fish, reptiles and batrachians, and also botany. The large number of specimens now under the care of this department numbering 224,142 a year ago last August, together with the fact that at the beginning of expert care under Mr. Brues in 1905 the collections were probably more misnamed than named, hundreds, probably thousands, of locality records falsified and were generally on the road to scientific worthlessness and the fact that large numbers of accessions are annually made and that the exhibits under this department are being continually improved and made more serviceable, have rendered it quite impossible to bring the identification and recording of specimens up to

date. The monthly reports will indicate that a large part of the time of this department is taken up with identification and recording, which is of prime importance in preserving their scientific usefulness and value. An average of approximately two months per year is spent by the curator in collecting in the field, the balance of the time in curatorial work in the museum, which, besides the care, identification of, recording and classificatory distribution of specimens, the preparation of copy for labels, making of exhibits, overseeing of fish and reptile mounting, calls for a considerable amount of time in making identification of plants, insects, etc., and giving information concerning them to visitors, to the Board of Health, the Superintendent of Parks, and in making of autopsies on animals that have died at the Zoo and are presented to the museum. He also assists the lecturers with information. For two seasons has given a short course of botanical lectures to a class of ladies and gentlemen coming weekly to the museum for that purpose. Occasionally lectures to high schools, attends to part of the departmental correspondence.

Assistant in Department R. A. Muttkowski—Especially in charge of Lepidoptera and Odonata, numbers and records, inflates larvae, assists in collecting, wrote first part (207 pages) of Museum Bulletin, carries on part of the departmental correspondence, gives information to callers.

#### DEPARTMENT OF PREPARATION.

Chief Taxidermist George Shrosbree—Has general charge of all taxidermic work (except a certain amount of fish and reptile casting done by Mr. Clowes). He takes part in collecting expeditions each year for from four to six weeks.

Assistant Taxidermist H. L. Stoddard—Assists in general taxidermic work, specializing at present on fish and reptiles. Has been a particularly efficient field collector.

Assistant Taxidermist P. C. Rohde—His sphere of usefulness in the museum has, by natural selection, drifted into that of general utility man. Is quite efficient in mechanical and photographic work; so that for a long time a large part of his time has been devoted to assisting departments other than his own in such work.

Modeler Herbert Clowes—Makes all artificial flowers, leaves, etc., used in bird and mammal or other groups, and usually sets them. Makes enlarged models of insects and flowers, some casts of fishes, reptiles and batrachians and paints all of these made by himself and many that are mounted by the taxidermists.

#### CARE OF EXHIBITION ROOMS.

Attendant H. E. Eichfeld—Attends to third floor; has general charge of Numismatic collection and identifies coins for the public; also does some card cataloguing for Anthropological department.

Attendant Alice Pluck—In charge of second floor; does most of mounting of plants and makes some record book entries, also helps in rounding up school classes.

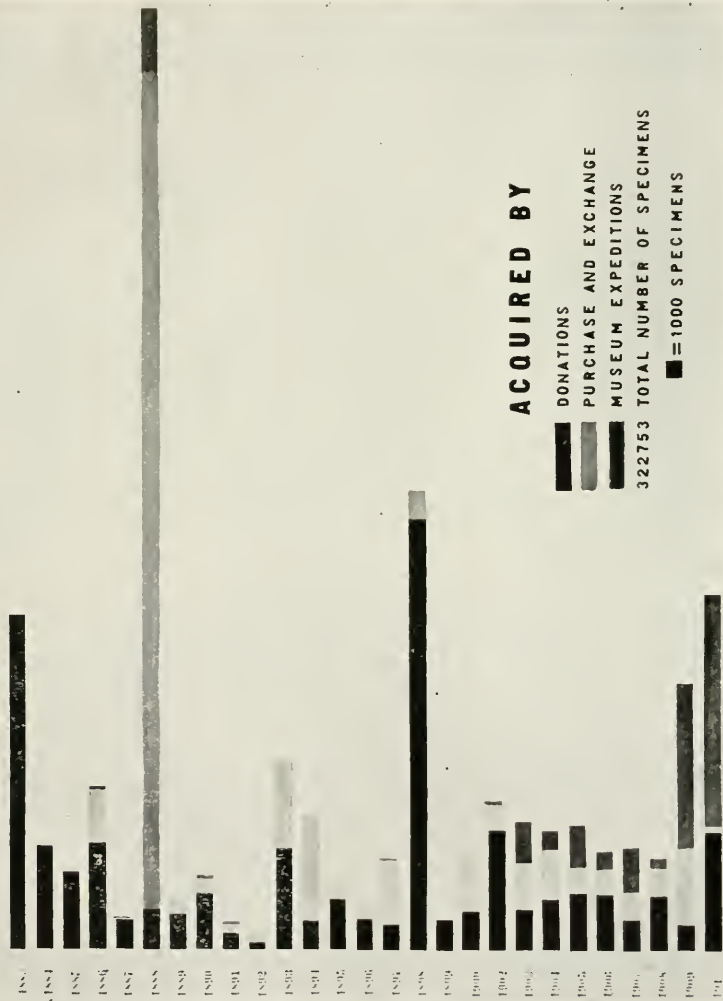
Attendant Lydia Nehrling—In charge of first floor; paints lantern slides and sometimes mounts plants.

Attendant Frank E. Tobin—Substitutes on various floors during absence of regular attendants, who are given leave of absence, one at a time, for every Sunday and holiday served; substitutes during sick leave and vacations. At other times assists in departments of Invertebrate Zoology or Anthropology.

#### JANITOR SERVICE.

Janitor P. J. Pier—In charge of cleaning and light trimming of building. Does small jobs of carpentry for various

# INCREASE OF COLLECTIONS



FROM THE MILWAUKEE BUDGET EXHIBIT.





departments, paints cases when necessary, attends to lawns and sidewalks, assists in all moving of cases, unpacks and packs most shipments received or sent out.

Cleaners Paulina Laur, Minna Meyer, Elizabeth Stockinger, work under direction of janitor in cleaning floors, polishing glass of cases, dusting, etc.

#### ENGINEER SERVICE.

Chief Engineer—F. C. Ruck.

Assistant Engineers F. W. Kanitz and W. J. Winkel—Attend to running of power plant and do numerous jobs of lighting installation, telephones, etc., about both library and museum.

Firemen—G. T. Serles, O. T. Logan, Nic Feltes, J. L. Burns.

Coal Passer, also *mostly* Mosaic layer—Enrico Marchi.

Laborer William Tellier—Used principally as coal passer."

#### COLLECTIONS.

Comparatively little has been possible in the line of new exhibits. The state of congestion has been growing more and more acute and all are looking forward to the relief that will be afforded by increased floor space and additional cases, enabling many of the existing exhibits to be reconstructed along different lines and under improved conditions of space and light.

However, during the period covered by this report, the collections have been materially added to and a considerable amount of work, in various of the departments, has been expended on the identification and permanent recording of these specimens and of others previously in the collections; but which, for lack of opportunity, had not been so treated.

The increase of the collections during the past sixteen months has been by means of 787 accessions embracing 31,681 specimens.

These are analyzed in the following tabulation so as to show the manner of acquisition, whether by gift, collection, purchase, etc., and also to segregate the calendar year of 1911 from the preceeding four months.

The upper line of figures for each class of specimens represents those acquired between Sept. 1st and Dec. 31st, 1910, the lower figures are those for the year 1911. This segregation is made in order that comparison of the growth of the various divisions during this latter twelve month period may be made with equal periods covered by previously issued reports and with others that will follow.

	Donation.	Col- lected.	Pur- chase.	Made.	Ex- change.	Total.
	23	388	191			602
Mammals . . . . .	79	122	4			205
	46	120	942			1108
Birds . . . . .	123	435				558
Birds' Eggs and	4					4
Nests . . . . .	14	25				39
	28	1	25			54
Fishes . . . . .	5	91	1	11		108
Reptiles and	31	15				46
Batrachians . .	26	155	12	3		196
	1073	419			204	1696
Insects . . . . .	6744	10360	1041		292	18437
	103					103
Mollusks . . . . .	93	204	7			304
	24					24
Crustaceans . . . .	3	28	3			34
Protozoans,		3				3
Sponges, etc . .	28	1	10			39

Minerals and	22				22
Rocks .....	236	45	3		284
	159				159
Plants .....	329	1069			1398
	3				3
Fossils .....	6				6
	14		24		38
Archeology .....	56	145	914	6	1121
	421		13		434
Ethnology .....	131	3601	772		4504
	29				29
Numismatics ....	93				93
	3				3
Nunnemacher ...	4		23		27
Totals for last four					
months of 1910 1983		946	1195	204	4328
Calendar year					
of 1911 .....	7970	16281	2790	14	298 27353

Comparing the museum specimens added during the twelve months of 1911 with those of an equal period extending from Sept. 1, 1909, to Aug. 31, 1910, as given in the last annual report we find them to be:

Year	Gifts	Col- lected	Pur- chased	Ex- Made changed	Totals
1909-10 .....	6852	13462	122	14 227	20677
1911 .....	7970	16281	2790	14 298	27353

which shows a very satisfactory increase of about one-third over last year in the procurement of specimens. The values of the specimens judged intrinsically or scientifically are also in approximately the same proportion of increase over those of the 1909-10 year.

The large number of gifts shown by this table testifies to the popularity of the museum with the citizens, especially

the students of our schools who represent the more numerous givers of birds and insects. It is a pleasure to see how close the museum stands to the people, closer than do most museums; but at the same time the citizens are closer with us than is the case in many communities, for we fall far short of several other museums in the total value of donations received, in gifts of specimens that were primarily purchased to be donated to the museum and particularly in gifts of money for the purpose of making collections.

Among the more noteworthy donations received during the past sixteen months are: \$1,000 each from Miss Gertrude L. Nunnemacher and Mr. Robert Nunnemacher for the increase of the Rudolph J. Nunnemacher collection: a fine female hippopotamus, collected by C. E. Akeley, September, 1910, in the Tona River, British East Africa, at the expense of the Uihlein Brothers; a fine, male, northern giraffe, eighteen months old and standing eight feet in height, presented by Ringling Brothers, the circus magnates; thirteen mammals and twelve birds that died in the Washington Park Zoo, of this city, presented by the Board of Park Commissioners; about 4,000 spiders and sixty-eight bound volumes and 301 pamphlets treating on spiders presented by Dr. Geo. W. Peckham, a former president of the Board of Trustees and a well known authority on the Attidae; 174 minerals, all save about half a dozen of which are rare species not previously represented in the museum's collection and eight archaeological specimens including a double-bitted, grooved, stone axe from Illinois, weighing nearly twenty-five pounds, which the director purchased and presented to the museum.

The collecting expeditions made during this period were:

Anthropological—By Dr. S. A. Barrett, to the mesa villages of the Hopi Indians near Toreva, Arizona, covering the period from May 15 to October 8, 1911. This expedition procured a fine lot of Hopi Indian artifacts, foods, etc., num-

bering 3,577 specimens, and will permit of the creation of a very picturesque group exhibit, besides furnishing a large series of specimens for systematic case exhibits. As a by-product, 32 reptiles and 91 plants from the region were sent in.

Biological—By H. L. Stoddard, to Sauk County, Wis., from Sept. 13th, to Oct. 17th, 1910, resulting in 171 birds and 136 mammals; to Prescott, Price County, Wis., latter part of October to Dec. 16, 1910, returning 51 birds and 254 mammals; to Sauk, Columbia and Dane Counties, Wis., April 8 to Oct. 12, 1911. This expedition was especially for the procurement of nests and young of birds. Mr. Stoddard was very successful in this until on June 14 he had the misfortune to drive his collecting hatchet into his own knee. This occurred when several miles from any habitation, resulting in much aggravation of the injury by the ensuing walk.

For several succeeding weeks he was confined to his bed and was unfitted for active work until his return to the museum. On Sept. 27th I went to Sauk County for ten days to assist Mr. Stoddard in packing up his collections, to take some necessary photographs and, incidentally, to do a little collecting. The returns of this expedition were 357 birds, 6 eggs, 18 birds' nests, 39 mammals, 3 mammal nests, 1 rattlesnake, 18 insects, 1 cactus.

Dr. S. Graenicher, George Shroshree and R. A. Muttkowski to Vernon and Grant Counties, Wis., on July 5th. P. J. Pier joined the expedition for two weeks, and I joined in the work for ten days. Mr. Muttkowski was called back on Aug. 4th on account of illness in his family, and the balance of the expedition returned on Aug. 16th. The results were 928 plants, 204 mollusks, 7,544 insects, 85 fishes, 112 reptiles and batrachians, 62 birds, 16 birds' eggs, and 80 mammals.

Several excursions were made to nearby points by Dr. Graenicher and other members of the staff for the study and

collection of sand dune flora near Two Rivers, Manitowoc County, Wis., and Wankegan, Lake County, Ill., and for the collection of other plants, insects, etc. The Rock County tornado of Nov. 11, 1911, afforded an opportunity to collect specimens and to take photographs illustrating this meteorological phenomenon, which was embraced, Dr. Barrett doing the field work.

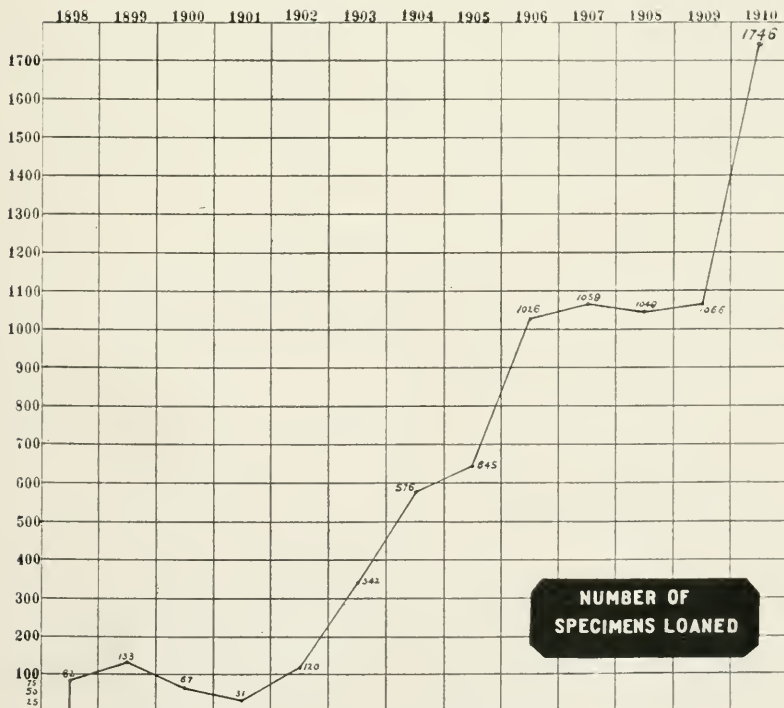
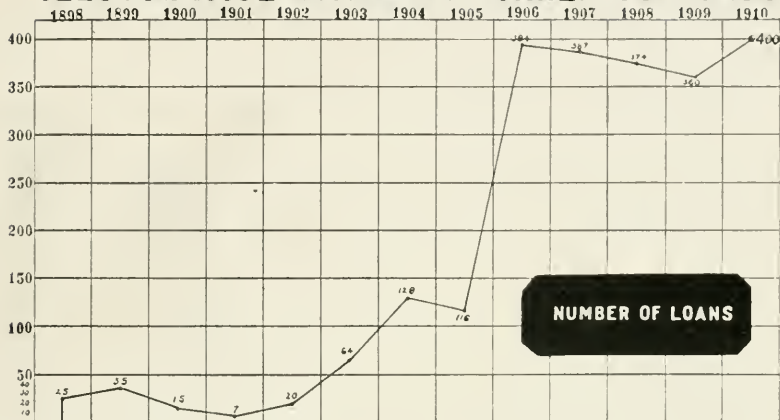
The expeditions and excursions were uniformly successful in the procurement of specimens and of environmental material and data, which latter are often very much more valuable and important than the specimens themselves.

The purchases made during this period have been more numerous than usual and also of greater value. Principal among these were two lots of Congo artifacts numbering 602 objects; a lot of ethnological specimens, largely from the South Sea Islands numbering 134 specimens; an interesting shrunken-head from the Jiviro Indians of Ecuador; skin of a fine tusker African elephant standing 11 ft. 2 in. at the shoulders and with tusks weighing 80 and 82 lbs., collected for the museum by Mr. Akeley in Unyoro, British East Africa; skin of an adult male Atlantic walrus; one lot of 139 skins and alcoholic specimens of small mammals largely from the Pacific Coast region; a fine, spirally twisted narwhal tusk 7 ft. 11 in. in length; a lot of 941 skins and 51 skulls of birds, mainly from the Pacific Coast region; a large Galapagos turtle skin; 11 casts of reptiles; 25 mounted tropical fish and a collection of 1,027 lepidoptera.

The number of casts made are identical with last year and the exchanges are about the same, being mainly insects.

The work of the taxidermists has been partially enumerated in the account of the collecting expeditions. The following specimens were mounted; two monkeys, three young leopards, one fawn, one woodchuck, one capybara, one Cuban tree rat, one bird, twelve reptiles, and seven fish. A cast of

## ILLUSTRATIVE MATERIAL LOANED TO SCHOOLS



FROM THE MILWAUKEE BUDGET EXHIBIT.





a large puff-ball was made. Skins were made of 472 mammals, some of which were of specimens collected on expeditions and not prepared in the field, 125 birds, 14 reptiles and 2 batrachians. Rough skeletons were prepared from 10 animals. The mounted mammals and birds and the transportation cases of the school loan collections necessitated considerable repair, many of the mounted specimens of the North American bird series were changed from shelf mounts to Shrosbree hangers; clay model, mold, and papiermache cast of an ocelot were prepared to illustrate the mounting of a mammal; the skin collections were examined from time to time and some purchased skins cleaned and made up in better form. A considerable amount of photographic work was done by Assistant Taxidermist Rohde, including the development and printing of 70 dozen films for the Anthropological Department, the making of 37 negatives and lantern slides for the lecture division, and the running of the projection lantern several days. Besides these items of work there were many miscellaneous jobs done for various departments.

#### EDUCATIONAL WORK.

For the first half of this period the lecture work was under Mr. Burrill and the guide work under Mr. Katze-Miller; for the second half, Prof. Brinckley and Miss Torrelle respectively carried on these two functions.

In my last report I enumerated some of the extensions of the lectures which I had in mind. The past year has seen a slight start on this work, which it is hoped will increase as facilities permit.

Although some years previously the director delivered a course of bird lectures to public school teachers, and has from time to time delivered single lectures on this subject before various assemblages of adults, the first course of bird lectures

open to the general public was inaugurated by Mr. Burrill on April 1st, 1911, and was carried on very successfully on each succeeding Saturday afternoon. In fact, so much enthusiasm was shown that sometimes two separate groups of people were taken into the parks or surrounding woodlands for observations at different hours Sunday mornings. Public botany lectures were inaugurated by Dr. Graenicher on Saturday, April 22nd, but were soon changed to Fridays so as not to interfere with the bird lecture periods. Botany does not appear to be as attractive a subject to the public as does birds. During Dr. Graenicher's absence in the east Mr. I. N. Mitchell of the State Normal School kindly consented to fill the two dates occurring.

The statistics regarding number of lectures given and the attendance secured are as follows:

For the period extending from Sept. 1, 1910, to June 30, 1911:

Instruction Given.	No. of Lec- tures.	Attendance.
<b>Grammar School Lectures—</b>		
Illustrated lectures . . . . .	490	Teachers . . . 828
Guide talks . . . . .	490	Pupils . . . . 26,546
		Visitors . . . 1,441
		<hr/> 28,815
<b>Bird Lectures (Spring '11)—</b>		
A. C. Burrill . . . . .	13	586
<b>Outside Lectures—</b>		
By Guides . . . . .	9	240
A. C. Burrill . . . . .	19	834
<b>Botany Lectures (Spring '11)—</b>		
Dr. Graenicher, lectures . . . .	4	
Dr. Graenicher, field trips . . .	4	144
	<hr/> 1,029	<hr/> 30,619

Lantern slides loaned, 909.

For the period extending from Sept. 1, 1911, to Dec. 31, 1911:

Instruction Given.	No. of Lec- tures.	Attendance.
<b>Grammar School Lectures—</b>		
Illustrated lectures (Dr. Brinckley) . . . . .	207	Teachers.. 336
Guide talks (Miss Torrelle)..	207	Pupils....10,769
		Visitors... 490
		—————11,595
<b>Bird Lectures—</b>		
Dr. Brinckley . . . . .	12	approximately 360
<b>Botany Lectures—</b>		
Dr. Graenicher . . . . .	6	108
	432	12,063

Lantern Slides—New slides made, 278; slides loaned, 337.

On May 6th I addressed a small group of public school principals and teachers at Grand Rapids, Michigan, on co-operation between museums and schools, and on the following day, Sunday, addressed a meeting of two or three hundred in the Fountain Street Baptist Church of the same city on the relations of public museums to city government.

Besides the lectures, the museum has continued its long established system of loans to the schools; which, during this period, consisted of 372 loans embracing 970 specimens and collections, numbers slightly below those of the previous twelve-month period. Just why there should be this decline is not apparent. However, as no additions have been made to the collections, and no new lists have been published, they have lacked anything in the way of advertising; and museum matters need advertising quite as much as do merchandise stocks.

We are looking forward to the occupancy of the new lecture hall, which will permit of handling the children in large

groups and thus doing away with the necessity of repeating the school lectures three times per day, a drudgery that does not make for the most efficient work.

In December I answered the request of the Board for an outline of my ideas regarding the enlargement of the lecture work which, in order to place in more permanent form, is herewith printed:

#### **LECTURES AND OTHER EDUCATIONAL WORK.**

The following is mainly based on introspection rather than on any careful study of the conditions and needs of the community and the pedagogical possibilities of museum work. Someone with special training in these matters should devote considerable time to a thorough study of this matter and even then, like a pilot in uncharted waters, be prepared to instantly alter his course as he feels his way through the first year's work. The outline is merely a suggestion and perhaps no single item in it would stand unchanged when the subject has been worked out as carefully as it should be.

#### **GRAMMAR SCHOOL CHILDREN.**

Due partially to the great shortcomings of the museum's collections and considerably to the individual points of view of the lecturers, the work with these classes has fallen far short of my anticipations.

I had hoped that we would give the pupils, first, valuable information along certain lines that would be of immediate application to their school studies and at the same time open up a vista of the extent and interest of these subjects beyond the point to which they were conducted—incite in them a desire for further knowledge; second, that these lectures would make apparent to them the usefulness of the museum to their needs for illustrative material which would make real what

otherwise would be mainly words; and third, that the secondary guide or laboratory lecture would be a model of museum interpretation, showing the child how to use specimens so that they will tell their story to him.

The large number of deadly repetitions, necessary under present conditions, entailed in reaching all members of each grade, has made this lecture work very monotonous and has greatly militated against securing the best people or getting the best out of them. The selfsame lecture is repeated three times daily for as many as eighteen school days, that is 54 times each by both lecturers.

The congested condition of the museum floors has rendered it a physical impossibility to get all the children of any one guide class where they can all at the same time see the specimens talked about by the lecturer or even all come within unobstructed range of his voice without cases intervening. Therefore I am of the opinion that this part of the work had best be eliminated and that upon the completion of the large lecture hall two lectures a day for say three days given to classes of about 700 children, would best be substituted for the 108 lectures now given to the same children of one school grade.

The number of times that the individual child comes to the museum might then be increased to almost any number that the school authorities thought advisable. They now come but twice a year.

Probably it would be found worth while to offer lectures on a considerable variety of subjects, geographical, historical, current events, etc., at, say 4 P. M. on such days as might be selected, timed to be specially apropos to school work, and which would be attended, after school hours, by such pupils from all parts of the city as might care to come as individuals; or perhaps it might be found more practical to have them come as groups from certain schools that had made reservations for them.

### HIGH SCHOOL PUPILS.

Perhaps a number of Science Clubs devoted to Biology, Botany, Entomology, Birds and Geology, devoted mostly to field observation and laboratory practice, might be organized and carried on on Saturdays. A careful canvass of the situation to determine the need of and feasibility of such clubs, should be made before they were decided upon. Membership not necessarily limited to high school pupils.

Science Clubs now exist in the high schools, but presumably do not offer all the advantages that the museum could.

### TEACHERS' COURSES.

It is believed that not a few of the grade teachers recognize their unpreparedness to handle even the small amount of Nature Study work now required of them and that they would welcome special instruction along these lines; therefore I would tentatively propose the following:

1. A course of fifteen lectures in Bird Study. Six of these would be general and the following nine would each be devoted to one of the nine birds, one of which is assigned for study to the kindergarten and the others distributed among the eight grades of the grammar schools. The museum loans these birds to the teachers for class study; but many of the teachers cannot make satisfactory use of them.

2. A course of about fifteen lectures in Botany divided as above, six to be general and nine to cover the several plants assigned to the grades.

### GENERAL PUBLIC.

Special classes Saturday afternoons.

1. Botany Class, about twenty weeks in spring and fall.
2. Bird Class, about forty weeks, all year, except summer.





NAMPEO THE TEWA POTTER OF HANO.





For the last two seasons we have been carrying on these classes under rather unfavorable conditions. Put upon a better basis, they undoubtedly would be well attended and would meet a want of the community.

Special Courses—evenings as determined.

What and how many subjects could profitably be presented would depend upon the demand, or wishes, of the public, some indication of which could probably be obtained; and also upon the subjects that could be handled well by members of the museum staff and the outside assistance (University Extension lecturers and others) that might be secured.

The following short courses of, say, five lectures each might be found appropriate, particularly if properly timed. Biology, Botany, City Trees, City Gardening, Zoology, Geology, Astronomy, Anthropology, Wisconsin Indians.

Special topics, Sunday afternoons.

Each of these lectures to be a unit complete in itself, and mostly aiming to make some phase of the museum's exhibits better understood and appreciated. There are such a multitude of appropriate subjects for these lectures that an enumeration would be tedious. Animals of the Past or Milwaukee a Million Years Ago; How the Surface of Our State was Fashioned; Parasitism and Commensalism; Curiosities of Animal Coloration; Animal Adaptations to Deep Sea Life, etc., etc., would all make most interesting and instructive lectures for such occasions. Then when any especially notable phenomenon occurred, such for instance as the Martinique volcanic eruption, the San Francisco earthquake, or the recent Rock County tornado, it would be appropriate to furnish as good an explanation of the causes and effects of this and similar phenomena as could be staged within a reasonable time after the occurrence.

In this work it would be necessary to keep within the money that could be profitably devoted to this work, and to not lose sight of the fact that these lectures should be a part of the museum's work and, therefore, in line with it; that the museum is not a school or college or a lecture bureau in the ordinary sense; but has especial and peculiar functions to perform and had best stick closely to them in order to do them well. That although many things outside of its departments are well worth while, yet in order to make its own lines effective it must concentrate on them and leave other things to other institutions."

#### VISITORS.

No attempt was made this year to estimate the number of visitors other than those that came on Sunday afternoons. The returns are therefore not especially significant or comparable with those hitherto published.

For the 17 Sundays from Sept. 1st to Dec. 31st, 1910, there were, by estimate, 38,035 visitors, and for the Sundays of the year 1911, excepting that falling on Aug. 13, which was omitted because of the absence of the attendant having this in charge, the number is given as 111,425. The largest number was 3,905 on April 23, and the smallest, 610, on July 2; the average was 2,166. The maximum is 1,400 below that of last year, but the average is 107 above. Presumably the number of visitors for the year was fully equal to that reported last year, i. e., 547,652.

We have been favored with visits from a rather unusual number of museum men; some of whom have given us information regarding specimens falling within their particular lines of study, which was of much value. While the lack of segregation of the various subjects of exhibit is necessarily displeasing to museum men, and the conditions of some of the exhibits themselves are very bad from overcrowding, a condi-

tion which cannot be changed until new cases are provided, yet most of these visitors expressed themselves as pleased in finding this a larger and more important institution than they had previously supposed it to be.

### MISCELLANEOUS.

The trustees and schoolrooms have afforded meeting places for the following associations: Federation of Civic Societies, Friday Afternoon Club, Milwaukee Art Society, Milwaukee County Medical Society, Milwaukee Froebel Union, Milwaukee Principals' Association, Milwaukee Teachers' Association, Milwaukee Zoological Society, Washington Park Zoological Society, Wisconsin Aid Society for the Blind, Wisconsin Archeological Society, Wisconsin Library Association, Wisconsin Mycological Society, Wisconsin Natural History Society, Woman's School Alliance and its executive committee, Wisconsin State University Extension Division.

The enormous canvas, Carl Marr's "Flagellants," presented jointly to the Museum and Library several years ago, by Mrs. Lisette Schandern, has since then been kept in the History Room of the Public Library where, standing on the floor, it had to be inclined in order to come within the height of the room. The librarian has long been anxious for the museum to take charge of it, but no space has been available. As the ample walls of the Auditorium building afford a better setting, by action of the boards of trustees of both the Museum and the Library, the picture has been loaned to the board of trustees of the Auditorium.

The publications of the museum made during this period were the 29th Annual Report, pp. 110, plates 10, issued May 1, 1911; Part II of Vol. I of the Bulletin containing Article 2, Lolo Objects in the Public Museum, Milwaukee, Frederick Starr, pp. 209-220, plates 1-8; Article 3, Bees of Northwest-

ern Wisconsin, S. Graenicher, pp. 221-250; Article 4, The Dream Dance of the Chippewa and Menominee Indians of Northern Wisconsin, S. A. Barrett, pp. 251-406, plates 9-25.

A Budget Exhibit was held in the Auditorium from November 27 to December 4, 1911, in order to familiarize the public with the various branches of the city administration. Inasmuch as the museum's exhibits are open to inspection every day in the year and are visited by a large part of our population, it was apparent that it would not be of interest to install exhibits of a similar nature at the Auditorium; and so we prepared others illustrating the actual work of the museum. There were series indicating how animals are mounted, how artificial flowers and leaves are made and how anthropological specimens are scientifically collected in order to illustrate native processes. There were also exhibited charts showing the development, by years, of various functions of the museum; the use of the funds of the museum in its several divisions; the museum government, etc.; photographs showing field and laboratory work and their results; and a phonograph that repeated various Hopi Indian songs, secured by the expedition to that tribe. In the Auditorium hall, devoted to budget lectures, Dr. Brinckley gave five demonstration lectures with groups of school children, and he, Dr. Barrett and myself each gave an evening lecture to large audiences on different phases of the museum's work. The space occupied by the museum's exhibit greatly attracted the public; and one of the daily papers stated that the museum's booth was the most interesting of any at the Budget Exhibit.

On May 17th I left Milwaukee for Boston, stopping at Rochester, and at Albany, N. Y., and at St. Johnsbury, Vt., followed on the 21st by Dr. Graenicher and Mr. Schrosbree who joined me in Boston, in which city and in Salem from the 23rd to 25th we attended the meetings of the American Association of Museums and later visited together the muse-

ums of New York, Washington and Chicago, in a study of various museum methods of preparation, exhibition and administration, I also investigating floorings and other constructional matters for the addition, returning to Milwaukee on June 5th.

July 10th Mr. Clowes went to the American Museum of Natural History in New York for a month's study of their methods of casting fish and batrachians; facilities for which were kindly tendered us by the director of that institution.

My scientific publications during this period have been confined to short notes on "The Brown Bat in Wisconsin", Bulletin of the Wisconsin Natural History Society, Vol. VIII, pp. 180-182; "Additional Wisconsin Record of Allegheny Least Weasel," Id. Vol. IX, p. 82; "The Status of Hoy's Shrew in Wisconsin," Id. Vol. IX, pp. 83-84, all of which were based on specimens contained in the collections of the museum.

Some needed relief was afforded in December, 1910, by the establishment of a contingent fund from which could be paid the necessary cash expenditures that arise between board meetings and for which cash has heretofore been advanced by the director.

It is well to put on record those things that are of historical importance to the museum. The acquisition of this or that collection has been duly chronicled in this series of reports; but after all, the specimens that are contained in a museum have a much smaller part in determining its usefulness than have the men who mould and direct its growth and therefore it is more pertinent to record their influence.

The subject of the following biographical sketch was entrusted with the first moulding of the character of the museum. An account of his stewardship is contained in the first reports and so need not be dwelt upon. His painstaking and serious efforts for the welfare of the institution were in ac-

cord with these well marked traits of his character. He made no pretense of being especially trained in natural history or in museum affairs. He had a strong love for nature and was a natural educator who rebelled against some of the artificialities of modern curricula.

Mr. Carl Herman Doerfflinger, the first "custodian" of the museum, died in Bradentown, Florida, Nov. 9, 1911, and was cremated in Milwaukee, Nov. 13, after appropriate funeral services, held under the auspices of Wolcott Post, Grand Army of the Republic.

He was born in Ettenheim, Germany, Feb. 17, 1843; came to Milwaukee in 1850; enlisted as a private in Co. B., 26th Reg. of Wis. Volunteer Infantry, Aug. 15, 1862, at Milwaukee; was mustered as sergeant on Sept. 17, 1862; second lieutenant on Dec. 20, 1862; first lieutenant on March 15, 1863; received a gun-shot wound above the left knee at the battle of Chancellorsville, May 2, 1863; taken prisoner and his leg amputated; paroled on May 13; was in various union hospitals until discharged by special order No. 91 of War department on Feb. 25, 1864; taught privately and in the German English Academy; farmed; served as custodian of the Public Museum from March 1883, to Sept., 1887, when he resigned because of broken health, which he sought to recover by a prolonged sojourn in Germany, Switzerland and France, where he collected Alpine plants, unearthed and studied the artifacts of the Pile-dwellers at the upper end of Zuerich Lake, excavated and studied the Cave Dwellers' culture about Bourg sur Gironde near Bordeaux; visited Mexico in 1894-1895; established the Doerfflinger Artificial Limb Company in Milwaukee in 1895; also serving as secretary of the City Service Commission from 1896-1900; a strong advocate of the introduction of the Kindergarten system in Wisconsin; advocate of a reorganization of the public school system and founder of the "National New Education League."



CARL HERMAN DOERFLINGER ABOUT 1900.





Mr. Doerfflinger was one of the early members of the *Naturhistorischer Verein von Wisconsin* and served for many years as its secretary. In 1876, in the annual report of the society, for 1876, he wrote: "I take the liberty of presenting to the society a plan that I have been contemplating for some time, and which has taken more definite shape since the death of Mr. Lapham: To establish in the central part of the city, with municipal, state or private means, a public scientific institution, to combine in it the collections of the Natural History Society and of Mr. Lapham, and to name it in honor of the two deceased representatives of scientific endeavors—Lapham-Engleman Institute. If a public library (similar to the Boston Public Library) and a hall for free scientific lectures and public meetings in the interest of the commonwealth are added (after the manner of the Cooper Institute), the proposed institution would be a monument to the character and merits of the two departed, more appropriate than the most costly memento of bronze or stone".

The museum of the Natural History Society continued to increase as a burden to the society and the efforts of Mr. Doerfflinger and others to dispose of it with the obligation to "conduct the museum and increase its collections with special reference to the main purposes of the Society, to-wit: Public instruction, and the provision of materials and helps for Scientific Investigation," bore fruit in its acceptance by the city in 1882.

Mr. Doerfflinger was chosen Custodian by the trustees at their first meeting and reluctantly accepted. The museum was fortunate in at once coming under the guidance of one possessed of such laudable, educational ideals for its future development, but unfortunate in not having been able to afford the means by which these could be carried to fruition. Alone with a conservator and a janitor with whom to organize and administer the museum, with little money for its development, it is no wonder that in four and a half years

he had worked beyond his strength and required several years' sojourn in Europe to restore his shattered nerves. While unable to accomplish many of his ideals, yet the mere possession of them insured that the museum would not stray far afield from the educational path that his imagination had pictured, and that his salutary influence should continue after his personal separation.

### INVENTORY.

On Dec. 31, 1911, the inventory of the collections and library, after making deductions for all specimens that for any cause had been removed, stood as follows:

8,871	Minerals and rocks.....	valued at \$	9,845.78
15,499	Fossils .....	valued at	9,438.45
32,370	Plants .....	valued at	3,246.73
1,657	Protozoans, sponges, corals, etc....	valued at	1,206.90
104,069	Mollusks .....	valued at	3,625.06
104,670	Insects .....	valued at	7,094.50
1,554	Crustaceans .....	valued at	418.94
2,336	Fishes .....	valued at	2,569.85
1,936	Batrachians and reptiles.....	valued at	3,186.71
11,555	Birds .....	valued at	28,701.55
6,460	Birds' eggs and nests.....	valued at	4,379.80
3,120	Mammals .....	valued at	31,105.95
23,470	Archeological specimens .....	valued at	16,760.59
15,637	Ethnological specimens .....	valued at	23,793.75
3,554	Arms, armors, etc., in the Rudolph J. Nun-		
	nemacher collection .....	valued at	80,615.38
3,135	Coins, bank notes, medals, etc....	valued at	703.01
<hr/>			
339,893	Specimens .....	valued at	\$226,692.95
2,965	Lantern slides .....	valued at	3,409.75
19,000	Books, pamphlets, maps, etc. ....	valued at	18,527.55
<hr/>			

361,858 Total number of objects recorded.

Total valuation, \$248,630.25

The total inventory of the museum's holdings is:

Lands—assessed valuation .....	\$165,000.00
Buildings—assessed valuation of museum portion of original Museum—	
Library building .....	\$374,500.00
Paid on addition .....	244,743.77
	<hr/> \$619,243.77
Power plant—Museum's share .....	8,693.60
Machinery, equipment, tools, 2,856 articles.....	4,239.64
Furniture and fixtures, 740 articles.....	65,288.62
Recorded specimens, lantern slides and library entries	248,630.25
Total .....	<hr/> \$1,111,095.88

#### FINANCIAL STATEMENT OF THE PUBLIC MUSEUM FUND

For the period from Sept. 1, 1910, to Dec. 31, 1911.

##### Receipts.

Balance in City Treasury, Sept. 1, 1910.....	\$ 17,060.73
Appropriation, tax levy, Jan. 1, 1911.....	35,367.59
Donation from Mr. Max Zabel for purchase of tellurian case .....	90.00
From Public Library, share of expense of operating Power Plant during August and September, 1910	997.17
From School Board, towards cost of maintaining Lecture Department .....	2,500.00
	<hr/> \$ 56,015.49

##### Disbursements.

##### Outlays.

Specimens: Mammals .....	\$ 2,003.66
Birds .....	453.25
Reptiles and batrachians...	281.91
Fishes .....	370.74
Insects .....	142.72
Mollusks .....	23.00
Crustaceans .....	8.33
Radiates, protozoans, etc. ..	23.50
Geology .....	100.90
Minerals and rocks .....	79.26
Fossils .....	2.00
Books .....	1,040.07

---

Furniture and fixtures .....	\$ 947.98
Machinery, equipment, tools.....	246.18
Power plant equipment .....	9.60
Building improvement .....	317.80
Lantern slides .....	72.56

## Expenses.

Salaries:	Administration .....	\$ 7,449.78
	Exhibition .....	13,202.75
	Janitor .....	3,606.60
	Lecture .....	4,072.89
	Protection .....	3,176.90
	Power .....	3,833.97
Power Dept.:	Coal .....	1,649.03
	Gas .....	20.69
	Repairs .....	145.90
	Sundry .....	47.78
	Supplies .....	174.17
Building Repairs .....		1,111.76
Bulletins .....		294.00
Cartage, express, freight .....		98.03
Equipment repairs .....		55.10
General expense .....		348.12
Janitor supplies .....		201.55
Lamp renewals .....		158.93
Photo supplies .....		45.37
Postage .....		251.17
Preparation—collection, supplies .....		409.19
Printing supplies .....		68.48
Stationery .....		202.61
Telephone, telegraph .....		148.32
Traveling and collecting .....		680.70
Water .....		67.48
Miscellaneous .....		173.11

## Record Accounts.

Appropriated to establish Contingent fund in cash drawer.....	\$ 75.00
Advanced to pay Public Library's share of Power Department expense for December, 1911 .....	577.50
	<hr/> \$ 48,470.34
Balance in City Treasury, Dec. 31, 1910..	\$ 7,545.15

# FINANCIAL STATEMENT OF THE HISTORICAL MUSEUM FUND

For the period from Sept. 1, 1910, to Dec. 31, 1911.

## Receipts.

Balance in City Treasury, Sept. 1, 1910.....	\$ 28,992.05
Appropriation, tax levy, Jan. 1, 1911.....	49,514.63
Bonds sold for construction of addition to building..	150,000.00
Premium earned on sale of bonds.....	4,860.79
	<hr/>
	\$233,367.47

## Disbursements.

Amounts paid by warrants on the City Treasurer:

Sinking fund, redemption of bonds.....	\$ 7,500.00
--	-------------

## Outlays.

Furniture and fixtures .....	248.87
Machinery, equipment, tools .....	119.51
Books .....	92.10
Specimens—Archeology .....	421.00
Ethnology .....	4,634.18
New building .....	95,068.30

## Expenses.

Salaries—Exhibits .....	\$ 3,626.64
Cartage, express, freight .....	150.61
Equipment repairs .....	2.51
Interest on bonds .....	4,762.50
Photo supplies .....	35.18
Preparation—collection supplies .....	65.59
Stationery .....	112.16
Miscellaneous .....	156.15
Telephone—telegraph .....	15.53
Traveling, collection .....	8.95
	<hr/>
	\$117,019.78
	<hr/>
Balance in City Treasury, Dec. 31, 1911..	\$116,347.69

### FINANCIAL STATEMENT OF THE RUDOLPH J. NUNNEMACHER FUND

For the period from Sept. 1, 1910, to Dec. 31, 1911.

#### Receipts.

Balance in City Treasury, Sept. 1, 1910.....	\$ 244.96
From Nunnemacher estate, last installment of be- quest from Rudolph J. Nunnemacher .....	1,000.00
Interest earned on above installment .....	63.47
Gift from Miss Gertrude L. Nunnemacher .....	1,000.00
Gift from Mr. Robert Nunnemacher .....	1,000.00
	<hr/>
	\$ 3,308.43

#### Disbursements.

Amount paid by warrants on the City Treasurer.

For purchase of specimens .....	\$ 162.49
	<hr/>
Balance in City Treasury, Dec. 31, 1911.....	\$ 1,145.94
Balance with Nunnemacher estate, Dec. 31, 1911....	\$ 2,000.00

The details of the anthropological, invertebrate zoology and library departments, as given by their curators, are herewith appended. The lists of acquisitions close the report.

Respectfully submitted,

HENRY L. WARD,

Director.



THE "WAR GODS" OF ORAIBI AND THEIR SHRINE.





## DEPARTMENT OF ANTHROPOLOGY.

Owing to the recent decision of the Board of Trustees to change the beginning of the fiscal year from September 1st to January 1st, the present report covers a period of sixteen months, from September 1st, 1910, to December 31st, 1911.

Owing to the large expenditures incident to building the new museum addition, all of which are being met by the funds of this department, the activities of the Department of Anthropology have been very greatly hampered in many respects. Not only has very little money been available for the purchase of new material but it has been necessary to forego much needed assistance and to, in every way, cut down to a minimum the expenses of the department. It was long ago pointed out that in order to properly develop the department more assistance should be provided and the present need along these lines has been especially felt more recently since the return of the Museum's Hopi expedition with a large collection of material which must be worked over and catalogued.

Along the line of new material it has been possible to secure, during the period covered by this report by gift, by purchase and by direct collecting, 7,215 specimens. These are distributed in the four divisions of the department's collections as shown in the following tabulation:

	1910	1911	Increase
Archeological Specimens .....	22,357	23,470	1,113
Ethnological Specimens .....	9,761	15,637	5,876
Rudolph J. Nunnemacher Collection	3,443	3,554	111
Numismatic Collection .....	3,020	3,135	115
Totals .....	38,581	45,796	7,215

The geographical range of these collections is fairly extensive, there being considerable ethnological collections from Africa, Burma, the South Seas, the northwest coast of America, and the southwestern United States, to say nothing of minor collections from various other regions. The additions to the archeological collections comprise very largely local Wisconsin material. The additions to the Nummischer collection include miscellaneous objects of virtue, while the additions to the Numismatic collection comprise such coins from various countries as have been donated from time to time.

The importance of first hand collecting by the museum was pointed out in the last annual report and the advantages of this method of acquiring material have been well shown by the present year's expedition among the Hopi Pueblos in Arizona, where the museum maintained an expedition from May to October with a net result of about 4,000 specimens, 1,400 negatives and 100 phonograph records. In addition to these which are what may be termed the tangible results, the information obtained concerning these specimens and the opportunity offered for first hand study of the life and culture of this very interesting tribe are very important. This collecting was done particularly with a view to the building of groups in the museum illustrative of the specialized life of the Hopi in their desert surroundings, and consequently the collecting done and the notes taken are such as will especially prepare us to build these groups and portray completely the life and culture of this tribe in relation to its highly specialized environment.

Owing to the congested condition of the exhibition halls, it has been impossible to make any considerable changes in the anthropological exhibits during the past sixteen months. However, the following minor changes have been made: Along the entire west wall of the third floor there has been

installed an exhibit of Menominee and Chippewa ethnological material from northern Wisconsin. In the adjacent cases the African and the Philippine and other South Sea Island ethnological collections have been re-arranged and certain new material added. In this same section also a small collection of Oneida material, from the Oneida reservation in Wisconsin, has been placed on exhibition. The Plains Indian ethnological material has also been re-arranged and certain additions have been made.

The entire collection of archeological copper, chiefly from Wisconsin and the Michigan peninsula, has been re-arranged and a large number of new specimens added, thus bringing our copper, which is such an important phase of the archeology of this section, into proper prominence in our collections.

A small amount only of re-arranging has been possible in the Nunnemacher collection. One large case has been added to this room and a considerable number of porcelains and other pieces which had not before been on exhibition have been brought out. It has also been possible to re-arrange certain parts of the Nunnemacher collection and re-label these to a large extent.

On account of this lack of opportunity to install new exhibits, the work of the department during the past sixteen months has been largely in the nature of laboratory work and has been chiefly confined to overhauling old collections which have been on hand for years past, in numbering and cataloguing new material as it has come in and in preparing labels.

But one publication has appeared in connection with the work of this department during this period. This is "The Dream Dance of the Chippewa and Menominee Indians of Northern Wisconsin," which was published as Article 4 of Volume 1 of the Bulletin of this Museum.

In this same connection, it should be mentioned that Mr. George A. West made use of photographs of certain of the Museum's specimens connected with the smoking customs of the Chippewa and Menominee Indians in a very comprehensive paper on this subject, "Uses of Tobacco and the Calumet by Wisconsin Indians," The Wisconsin Archeologist, Vol. 10, p. 64, 1911. Mr. West has also considered certain information obtained by the Museum's expedition among the Chippewa and Menominee Indians, during the summer of 1910, of sufficient merit to warrant its incorporation into his text.

During the period covered by this report, the curator of the department had occasion to speak on the following subjects:

The Indians of the Province of Esmeraldas, Ecuador,  
Field Museum of Natural History Lecture Course,  
Chicago, Illinois.

The Mythological Concepts of the Cayapa Indians of Ecuador,  
Wisconsin Academy of Sciences,  
Madison, Wisconsin.

The Dream Dance of the Chippewa and Menominee Indians  
of Wisconsin,  
Wisconsin Academy of Sciences,  
Madison, Wisconsin.

Life Among the Indians in the Jungle of Ecuador,  
Snowflake Stake Academy, Snowflake, Arizona.

Anthropology,  
Snowflake Stake Academy, Snowflake, Arizona.

The Chippewa and Menominee Indians of Wisconsin,  
Wisconsin Natural History Society,  
Milwaukee, Wisconsin.

The Archeology of the Ecuadorian Coast of South America,  
Wisconsin Archeological Society,  
Milwaukee, Wisconsin.

The Present Day Indians of Wisconsin,  
Immanuel Men's Club,  
Milwaukee, Wisconsin.

Indian Life in the South American Jungle,  
Budget Exhibit, Auditorium,  
Milwaukee, Wisconsin.

The Chippewa and Menominee Indians of Northern Wisconsin,  
North Side High School Science Club,  
Milwaukee, Wisconsin.

Attention has been called in the early part of this report to the growing need of more assistance in this department, and to the further handicap under which the work is at present being carried on owing to the lack of adequate exhibition space, and especially to the lack of the necessary funds to acquire new material. These are conditions which it is sincerely hoped will be remedied immediately upon the completion of the new museum addition. In last year's report, attention was called to the necessity of immediately securing as far as possible all available material of an anthropological nature that is required by the museum, particularly on account of the fact that authentic and desirable material is growing daily much more scarce and difficult to obtain. No opportunity should, therefore, be lost to secure such material and, insofar as it is possible, this material should be obtained by direct collecting through museum expeditions sent out for this special purpose.

A large amount of new material from regions now unrepresented in the Museum's collections will be required immediately the new museum addition is completed. This material should obviously be secured and prepared for exhibition as quickly as possible. In securing such material the educational value of groups which show not only the specimens themselves, but also their association with other phases of the culture of the people and the natural environment surrounding them, should always be borne in mind. This class of material and also the information required for its proper treatment can be obtained almost solely through direct first hand collecting.

In connection with work of this kind too much stress cannot be laid also upon the necessity of building up our Museum library, since to properly handle such material much careful research is required and for this the extant literature bearing upon any subject is absolutely necessary. At the present time the Museum's library is very scantily equipped with anthropological literature, and this defect should be repaired at the earliest possible moment, both by the purchase of a large series of books and also by subscriptions to various periodicals which are so necessary in order to keep abreast of the times in any branch of science.

The policy of two-fold usefulness of this department, which was outlined in the last annual report, namely, that of rendering the greatest possible service to the people of the immediate community by the exhibition of comprehensive and well ordered collections and carefully prepared groups, and that of rendering a like service to the world at large, as well as to the immediate community also, by means of its researches and publications, is one which has to the present time borne fruit in its small way, and which will, with the completion of the new addition and with the resultant opportunities for expansion along all lines be productive of far greater results in the near future.

Respectfully submitted,

S. A. BARRETT,  
Curator of Anthropology.





FENCE LIZARD: COMMON SWIFT. *SCELOPORUS UNDULATUS* (LATREILLE).  
Mounted specimens from Arizona.





**DEPARTMENT OF INVERTEBRATE ZOOLOGY.**

In last year's report of this department attention was called to the congested condition of affairs in our exhibits, and hopes were entertained that an early completion of the new addition would bring us the much needed relief. Unfortunately our expectations were not fulfilled, and we found ourselves at the end of the year 1911 still confronted with the same situation as before.

Our collections have shown a steady and noteworthy growth during the period covered by this report, viz.: from September 1, 1910, to January 1, 1912. A collecting expedition to the Mississippi region in the southwestern part of Wisconsin added 8,878 specimens to the number on hand. The party, consisting of Mr. George Shroobree of the Department of Taxidermy, Mr. R. A. Muttkowski and myself of the Department of Invertebrate Zoology, left Milwaukee on July 5, 1911, for La Crosse, and went into camp the following day on a slope near the Mississippi river about two miles north of Genoa, Vernon County. A second camp was established July 20, near Wyalusing, Grant County, where nine days were spent. The third and last stop was made July 29 at Rutledge, Grant County, near the Illinois State line, and the members returned to Milwaukee August 16.

One of the main objects of this trip was to collect some reptiles and fishes for exhibition purposes. At Wyalusing we were joined by Mr. Philip Pier, janitor of the Museum, a man who, having spent his earlier days in this part of the country, was quite familiar with the region and the methods employed in fishing for the larger kind of fish, such as buffalo and cat-fish, and who proved to be of great help in vari-

ous ways. A number of large snakes and fishes were obtained, and in each case Mr. Shroshree, after making a detailed color sketch and taking a plaster of Paris cast of the fresh specimen worked out a careful preparation of the skin. These specimens are being mounted at the museum to be placed on exhibition as soon as finished.

Among the specimens brought back from this trip are included 928 plants, 204 mollusks, and 7,544 insects, and all such material is of decided value in the study of the distribution of plants and animals in the state.

At the end of April work was taken up with a botany class for adults, carried on throughout the months of May and June, and continued in September and October. In this connection a lecture illustrated by lantern slides was given each Saturday afternoon, followed by a field trip whenever the weather permitted.

Many visitors call on this department for information on some subject pertaining to natural history. Insects taken in or near the homes of people are brought in or sent in for identification, and advice is often wanted in regard to efficient methods in combating injurious insects. We are also frequently called upon for information on wild flowers, and throughout the flowering season we have kept up an exhibit of fresh wild flowers in a glass case in the main hall of the second floor in order to be helpful to the public, and to stimulate an interest in wild flowers. The number of people interested in mushrooms seems to be on the increase, judging from the numerous requests for identification of specimens in the late summer and fall.

The curator attended the annual meeting of the Wisconsin Academy of Sciences, Arts and Letters, held at Madison, February 16th and 17th, 1911, and read a paper on "Certain instincts in the larvae of parasitic bees."

In company with Director Henry L. Ward and Chief Taxidermist George Shrosbree the curator took part in an official study trip to some of the larger eastern museums and similar institutions, and on this occasion he attended the annual meeting of the Association of American Museums at Boston from May 23 to 25, 1911. This meeting offered ample opportunity for a study of the exhibits in the Boston Museum of Natural History and the Peabody Museum of Salem, Mass. A short visit was made to Arnold's Arboretum with the Gray Herbarium, one to the Bussey Institution of Harvard University, as also to the United States Gypsy Moth Laboratory at Melrose Highlands near Boston, where experiments are being carried on with caterpillars of the gypsy moth and brown-tail moth and their parasites, in an effort to control these most serious insect pests. After leaving Boston the museums and kindred institutions of New York, Brooklyn and Washington were gone through as thoroughly as possible in the short time at our disposal, and especial attention was given by the curator to the methods employed in the preparation of casts and mounts of fishes, batrachians and reptiles, as also to exhibits of invertebrates, and those of plants showing the economical aspects of the latter. On the return trip a day was spent at the Field museum of Chicago.

#### REPTILES AND BATRACHIANS.

Since last report several exhibits have been installed in wall cases of the main hall on the second floor; most conspicuous among these is a group of three spiny-nosed iguanas (*Iguana tuberculata rhinolopha* Wieg.), donated by Mr. Max Herzfeld of the Boston Store and mounted by Mr. George Shrosbree. A large model showing the anatomy of the frog has been purchased and placed on exhibition.

Some fine specimens of live snakes and lizards were collected in the desert region of Arizona by Dr. S. A. Bar-

rett, Curator of Anthropology, while on a collecting trip to that region in the interests of his department. These, as also some reptiles from southern Alabama, received through the courtesy of Mr. H. Hayssen of Chunchula, Ala., will be mounted and exhibited later on.

The number of reptiles and batrachians accessioned during the period covered by this report amounts to 242, and 112 of these were obtained on the collecting trip to the Mississippi river.

#### FISHES.

An exhibit illustrating protective coloration in fishes has been installed in one of the wall cases on the second floor. The gaudily colored fishes shown here are from the coral reefs of the Hawaiian Islands and the Bahamas, and were purchased from Mr. Denton of Wellesley Farms, Mass.

During the year casts of several species of fish from our surroundings were prepared by Mr. Herbert Clowes.

A large steel-head trout caught in the Manistee river at Manistee, Michigan, was presented to the museum by Mr. William Odenbrett of Milwaukee. This species, an inhabitant of some of the streams of the Pacific Coast region of the United States, was introduced several years ago into the Great Lakes, and is now occasionally taken in Lake Michigan. The specimen has been mounted and placed on exhibition.

Among the anatomical models purchased during the year, there is one of the European perch (*Perca fluviatilis* L.).

#### MOLLUSKS.

Our collection of mollusks shows an increase of 407 specimens, 204 of which are from the Mississippi river in Vernon

and Grant counties. On the collecting expeditions of 1909, 1910 and 1911 along the St. Croix and Mississippi rivers from the headwaters of the St. Croix near Lake Superior to the southwest corner of our state in Grant County, some excellent material representing the Najad fauna of the upper Mississippi drainage system was procured.

An enlarged model of a fresh water clam illustrating the most important parts of its anatomy has been purchased and added to the mollusk exhibits.

#### CRUSTACEANS.

This part of our collections shows an increase of 58 specimens during the period under consideration. Mr. Herbert Clowes has colored a number of dry specimens on exhibition (lobster, blue crabs), true to life, thereby improving the general appearance.

#### INSECTS.

With a total increase of 20,133 specimens (7,544 from the collecting expedition along the Mississippi river), this department outranks all the other departments as far as the number of accessions is concerned.

Toward the end of the year a rather favorable opportunity presented itself for the purchase of a fine lot of North American and European butterflies and moths from Mr. A. J. Croker of Victoria, B. C., at a very reasonable price. About 450 species are represented in the lot, and 400 of these are new to our collection.

During the last two years Mr. Muttkowski and the curator have been giving more attention to the collecting of insects of the orders Neuroptera, Orthoptera, and Hemiptera.

since these have been rather poorly represented in our collection heretofore.

#### PROTOZOANS, SPONGES, ETC.

A number of well preserved specimens of Tunicates, Polyzoans, Annelids, Echinoderms and Coelenterates collected by Mr. C. T. Brues in the Puget Sound region, have been exhibited in rectangular jars.

Among the enlarged models purchased during the year there are two of the star-fish, *Asterias forbesii* Verrill.

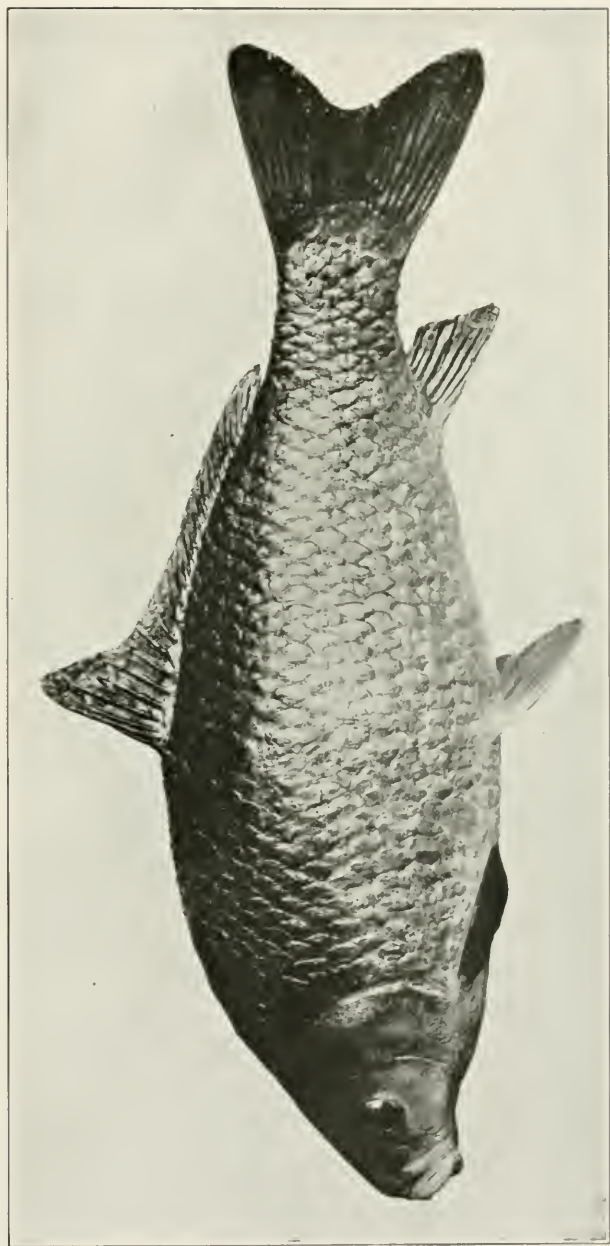
#### BOTANY.

During the past year several of our botanical friends have contributed to our herbarium of Wisconsin plants, donations having been received from Messrs. J. R. Emmett, Wm. Finger, Chas. Monroe, Dr. H. V. Ogden of Milwaukee, and H. C. Benke of Manitowoc.

In the region along the Mississippi river in Vernon and Grant Counties 928 plants were collected by the members of the museum expedition, and the total number of accessions since last report amounts to 1557.

A committee appointed by the Wisconsin Natural History Society for the purpose of preparing a list of the flowering plants and Pteridophytes of Wisconsin, and consisting of Messrs. Wm. Finger, Charles Monroe, Dr. H. V. Ogden, Howland Russell, and the curator, held weekly meetings at the museum during the winter and spring months, and studied the plant material from the state contained in our herbarium.

A plaster of Paris cast was made by Mr. George Shroobree of a Giant puff-ball (*Calvatia gigantea*) from Cedar Lake, Washington County, Wis., weighing 18 pounds, and donated by Miss Laura Tiefenthaler of this city.



RAZOR-BACKED BUFFALO, LETHON'S BUFFALO (RAFINESQUE).  
Mounted Specimen from the Mississippi River at Rutledge, Wis.





## PUBLICATIONS.

Papers on the following subjects were published by members of this department :

1. Graenicher, S. The bee-flies (Bombyliidae) in their relations to flowers. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 91-101 (April 1910).
2. Graenicher, S. New Zealand's experience with the red clover and bumblebees. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 166-169 (October 1910).
3. Graenicher, S. On humming-bird flowers. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 183-186 (October 1910).
4. Graenicher, S. Wisconsin Diptera. A supplement to the preliminary list of Bombyliidae, Syrphidae and Conopidae. Bulletin Wis. Nat. Hist. Soc., Vol. IX, pp. 66-72 (April 1911).
5. Graenicher, S. Some records of Wisconsin lizards. Bulletin Wis. Nat. Hist. Soc., Vol. IX, pp. 78-82 (April 1911).
6. Graenicher, S. Bees of northwestern Wisconsin. Bulletin of the Public Museum of the City of Milwaukee. Vol. I, Article III, pp. 221-249 (November 1911).
7. Muttkowski, R. A. Additional notes on *Trichocnemis aliena* Scudder. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 106-108 (April 1910).
8. Muttkowski, R. A. A new species of *Chalcophora* from Wisconsin. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 135-136 (July 1910).
9. Muttkowski, R. A. The applicability of certain generic names of Odonata. Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 158-160 (July 1910).
10. Muttkowski, R. A. *Eufallia*, a new name for *Belonia* Fall. (Coleoptera). Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 161-162 (July 1910).
11. Muttkowski, R. A. Miscellaneous notes and records of dragonflies (Odonata). Bulletin Wis. Nat. Hist. Soc., Vol. VIII, pp. 70-76 (October 1910).

12. Muttkowski, R. A. New records of Wisconsin dragonflies (Odonata) II. Bulletin Wis. Nat. Hist. Soc., Vol. IX, pp. 28-41 (April 1911).
13. Muttkowski, R. A. A new Gomphus. Ent. News, Vol. XXII, pp. 221-223 (May 1911).
14. Muttkowski, R. A. The composition of taxonomic papers. Ann. Ent. Soc. Am., Vol. IV, pp. 194-217 (June 1911).
15. Muttkowski, R. A. Studies in Tetragoneuria. Bulletin Wis. Nat. Hist. Soc., Vol. IX, pp. 91-134 (July 1911).

S. GRAENICHER,

Curator of Invertebrate Zoology.

## LIBRARY.

The present report contains a resume of the work done in the museum's library from September 1st, 1910, to December 31st, 1911.

Through the kindness of Mr. George Wagner of the Wisconsin Academy of Sciences, Arts and Letters, we have received 181 volumes of publications of various scientific societies, which have received proper attention by being catalogued and placed upon the shelves of our library. Among these publications were a number which enabled us to complete several broken sets of society publications, and besides gave us a welcome opportunity to add to our regular mailing list a number of societies with whom we have since entered upon a permanent exchange of publications.

I revised the publications of fifty agricultural experiment stations and found that some of these were of little value to the museum. I requested these experiment stations to send us in future only such publications which have a bearing on zoology, entomology, botany, soil investigation and plant diseases.

In order to keep the publications of the various scientific societies and museums complete, it is absolutely necessary to continually watch for the appearance of new numbers, as it frequently occurs that we fail to receive them. With this purpose in view 366 letters were directed to the various societies and museums with the pleasing result of not only receiving missing publications, but adding to our exchange list 23 new societies which were willing to exchange their publications with us.

At present the museum has 512 scientific societies and museums on its permanent mailing list with whom we entertain an exchange of publications. As most of these publications

are received unbound they are liable to mutilation and early destruction. It would therefore be advisable to set aside an annual appropriation for the binding of these books so as to protect them from ruin. In connection herewith I wish to state that within the last 16 months 415 volumes were bound, then re-numbered, and returned to the shelves.

The 512 societies, museums, and periodicals which are represented in our library may be divided as follows: 202 general science societies, 67 general science museums, 62 agricultural and experiment stations, 47 geological societies and surveys, 24 botanical societies and gardens, 22 entomological societies and periodicals, 19 historical societies, 18 archaeological and ethnological societies and periodicals, 15 zoological societies and museums, 13 ornithological societies and periodicals, 10 geographical societies, 5 art museums, 3 mining societies, 2 molluscs periodicals, 2 numismatic societies, and 1 fishing and hunting periodical. Among these are 18 periodicals for which we pay an annual subscription.

Of the 512 publications in the library 299 are published in the English, 139 in the German, 29 in the French, 9 in the Italian, 8 in the Swedish and 28 in the Spanish, Portuguese and Mexican languages.

It affords me pleasure to state that the Board of Trustees, upon my request, expressed in the previous report, has approved of providing us with additional shelf room by installing two new book stacks of the same material and pattern as will be installed in the new addition to the museum. The new book stacks gave us some relief in shelving additional publications, but not sufficient to enable us to place all the publications in numerical order.

In order to gain more room I have taken from the shelves all the over-sized books and placed them on top of the cases, but even this additional room did not materially meliorate the congested condition on the shelves. The only remedy for shelving all the publications would be by adding a second new

book stack to the library furniture. For the 141 over-sized books which were removed from the shelves wooden dummies were installed and the corresponding catalogue cards marked accordingly so that the books could be readily found.

In my last report I also requested the installation of an additional card cabinet. The board of trustees upon the recommendation of the director provided the library with a new card cabinet by which the work in the library was greatly facilitated. The catalogue cards were re-arranged and so distributed that at present one cabinet case is used for the author cards and the other for the subject cards, leaving sufficient space for the next few years to come.

It was indeed a very busy period since submitting my last report: 3,689 volumes and pamphlets were received from the different scientific societies and museums, and from the United States Government, and all of these were taken care of and prepared for the shelves. Besides, I have written out for the card catalogue 4,015 author cards, 4,802 subject cards, and 64 guide cards. It is not only the work of writing the cards, but many of the articles contained in the different publications have to be read over and looked up before a correct classification can be made.

Since submitting my last report I have analyzed the entire Illinois State Geological Survey publications and one of the entomological periodicals, the "Entomological News" from Vol. 1 to Vol. 20, inclusive, most of the United States Government publications, and these of the leading American societies which we have received during the last 16 months.

While at various times in previous reports I expressed pleasure at the liberal donations to our library by the Wisconsin Academy of Sciences, Arts and Letters, through the kindness of Mr. Geo. Wagner, it is at this time that I can report a magnificent gift to our library by Dr. George W. Peckham, the former librarian of the Public Library. Dr. Peckham has kindly given to us as a donation 68 volumes and 301 pamphlets

treating on the spiders from all parts of the world. By this splendid donation the museum has come in possession of literature on spiders which will be a credit to the museum library for all times to come. I wish to express my gratitude to Dr. Peckham for the magnificent and highly welcome gift.

Among the purchases are some works of which I desire to make special mention. These are the latest edition of the *Encyclopaedia Britannica*, consisting of 29 volumes; also Bartholomew's *Zoographical Atlas*, illustrating the distribution of over 700 families, genera, and species of existing animals, three volumes of Trouessart's "*Catalogus Mammalium Tam Viventium Quam Fossilium*," and Scudder's *Butterflies of the Eastern United States and Canada*. There have also been added by purchase quite a number of books relative to ethnology and archaeology.

Two other highly valued works which the Board of Trustees ought to secure for our library are the "*Zoological Record*," an International Catalogue of Scientific Literature, published by the Royal Society of London, of which 46 volumes have already been published, and the work "*Bronn's Klassen und Ordnungen des Tierreichs*." Both these reference works would greatly facilitate cataloguing the publications contained in the museum's library.

The expenditures on behalf of the library were \$1,313.59, i. e. \$183.42 for library supplies and furniture, and \$1,130.17 for books and binding.

In conclusion, I wish to state that I look forward with pleasure to the time when our library will be removed to its more spacious quarters in the new addition where we expect to find ideal conditions to carry out the future work of this rapidly growing department of the Public Museum.

Respectfully submitted,

CARL THAL,

Curator of Books.

## APPENDIX.

---

### Additions to the Museum and Its Library.

Donors are citizens of Milwaukee unless otherwise noted, and where no localities to specimens are given, the State of Wisconsin is to be understood.

#### ZOOLOGY.

##### Donations.

Akerley, Dr. A. W., Soldiers Home, Wis.

1 Sphinx Moth.

Allen, C. J.,

1 Sora.

Allen, Miss Mary O.,

1 Sora.

Altschwager, Hugo,

14 Insects,

Boise, Idaho.

Anderson, Isaac,

1 White-throated Sparrow.

Anderson, Oscar,

1 Moth.

Andreuccetti, Miss Adela,

1 Scarlet Tanager.

Ashworth, Gladys,

1 Gray-cheeked Thrush,

1 Maryland Yellow-throat.

Baeumle, Bernard,

3 Western Painted Terrapins.

Bahner, Miss Lillian,

1 Butterfly.

- Baranski, Bennie,  
1 Crow.
- Baranski, Miss Florence,  
1 Horned Lark.
- Barrett, Dr. S. A.,  
14 Mollusks.
- Barrett, Mrs. L. M., Berkeley, Cal.,  
3 Spiders, Berkeley, Cal.
- Barrett, Dr. S. A., and Bernard H. Brah,  
6 Garter Snakes,  
1 Insect,  
30 Mollusks.
- Barrett, Dr. S. A., and Henry L. Ward,  
7 Mollusks.
- Barrett, Dr. S. A., and Dr. S. Graenicher,  
3 Crustaceans,  
8 Fishes,  
16 Insects,  
1 Snake.
- Barth, Carl,  
1 Screech Owl.
- Barth, Dr. George P.,  
2 Snakes.
- Batchelor, R. P.,  
1 Yellow-bellied Sapsucker.
- Beck, Louis, St. Augustine, Florida,  
1 Coquina, St. Augustine, Florida.
- Beebe, Dr. E. W.,  
1 Hermit Thrush.
- Besch, Edwin,  
1 Little Brown Bat.
- Biagi, Frank,  
1 Black-crowned Night Heron,  
1 Snail, Port Limon, Costa Rica.
- Bierbach, Alonzo,  
1 Owl.



- Bitker, Bruno,  
 1 Silvery Black Bat.
- Blauschke, Ernst H.,  
 1 Kingfisher.
- Boness, Arthur,  
 2 Western Painted Terrapins.
- Borchardt, Elmer,  
 3 Western Painted Turtles.
- Borgius, Carl,  
 1 Bronzed Grackle.
- Bower, H. M.,  
 1 Snake.
- Brah, Bernard H.,  
 7 Insects.
- Braun, Paul,  
 2 Insects.
- Brimley, C. S., Raleigh, N. C.,  
 6 Dragonflies, North Carolina.
- Brown, Abe,  
 1 Red Bat,  
 1 Tiger Salamander.
- Buckstaff, George A., Oshkosh, Wis.  
 1 Double-crested Cormorant.
- Buenger, Harry F.,  
 9 Insects.
- Burdick, M. L.,  
 1 Screech Owl.
- Burnham, Lawrence,  
 1 American Robin.
- Burnhart, Andrew,  
 1 Little Green Heron.
- Burns, Daniel,  
 1 Pine Grosbeak.
- Burrill, Alfred C.,  
 128 Insects,  
 3 *Echinarachnius parma* (Gray), Nahant, Mass.  
 1 Skull of *Malacoclemmys geographica* (Le Sueur),  
 Mass.

- Burrill, Mrs. Alfred C.,  
2 Insects.
- Burrill, Alfred C., and Mrs. A. C.,  
811 Insects, United States.
- Buscher, Ewald C.,  
8 Mushroom Beetles.
- Buttles, Jr., Lewis S.,  
1 Western Painted Tortoise.
- Calmerton, Miss Evalyn,  
1 Virginia Rail.
- Campbell, Dr. James C.,  
1 Short-faced English Tumbler, (mounted).
- Campbell, Miss Mary, Chicago, Ill.,  
2 Lesser Birds of Paradise, New Guinea.
- Carlas, Mrs.,  
1 Moth.
- Causebrook, Mrs. George,  
1 Northern Flicker.
- Chandler, George,  
98 Insects, cocoons, etc.
- Clowes, Herbert,  
142 Insects,  
1 Little Brown Bat.
- Cohn, Nathan,  
1 Yellow-bellied Sapsucker.
- Conne, Edward, and Sam Dickens,  
1 Snake.
- Connell, Clyde,  
1 Western Painted Terrapin.
- Davies, Mrs. Charles G.,  
1 Horn core.  
1 Tooth.
- Disch, H. G.,  
1 Screech Owl.
- Dernuf, W. J., Wabasha, Minn.,  
35 Cocoons of Moths, India, Asia and No. America.

- Dreyfuss, Julius,  
2 Legs of Rooster (double spurs).
- Dunn, Arthur,  
1 Tomato Worm.
- Edwards, J. T., Medford, Wis.,  
2 Rusty Blackbirds.
- Ehmke, Ernest,  
1 Snapping Turtle.
- Eising, George W., Auburndale, Wis.,  
1 Grey Squirrel, melanistic,  
1 Sora,  
17 Striped Gophers and Nest.
- Eling, John J., Prescott, Wis.,  
1 Allegheny Least Weasel.
- Eling, Mrs. John J., Prescott, Wis.,  
1 Mouse.
- Ellsworth, W. H.,  
1 Mollusk, (Vermetus), Sarasota Bay, Manatee Co., Fla.
- Emmett, J. R.,  
3 Meloid Beetles.
- Emrich, Jacob,  
1 Insect, "Walkingstick".
- Engelhardt, Carlton,  
1 De Kay's Snake,  
1 Water Beetle.
- Erbach, Clarence,  
1 Western Painted Terrapin.
- Ertz, Bruno,  
12 Insects.
- Falconer, Leo,  
36 Insects,  
5 Insects, Grand Rapids, Mich.
- Fallon, Mrs. M. E., Oneida, Wis.,  
1 Screech Owl,  
1 White-throated Sparrow.

- Fellows, Miss J. M.,  
1 Brown Thrasher.
- Finkel, Miss Fanny,  
1 Hermit Thrush.
- Finkel, Lester,  
1 Yellow-billed Cuckoo.
- Fitzgerald, W. J.,  
1 Snail.
- Fletcher, Glen,  
1 Chick with four feet.
- Follansbee, Earl,  
2 Western Painted Terrapins.
- Franklin, Jacob,  
1 Fox Sparrow,  
1 Western Painted Terrapin.
- Freuler, Loraine,  
1 Brown Creeper.
- Fritsch, Charles,  
1 De Kay's Snake.
- Gardner, Miss Emma J.,  
1 Fox Sparrow,  
1 Gray-cheeked Thrush,  
1 Saw-whet Owl,  
1 Woodcock.
- Gastrow, Albert,  
1 Townsend's Solitaire.
- Gehl, Erwin,  
1 Sora.
- Gerber, Erwin,  
1 Spider.
- Gerry, Miss Lucille,  
1 Water Thrush.
- Gillen, Dr. Frederick C.,  
1 Giant Locust, Gatun, Panama.
- Glick, Miss Eva,  
1 Tarantula, Probably Central America.

- Goebel, Frank X.,  
     1 Acorn Weevil.
- Goldberg, Israel,  
     1 Wood Thrush.
- Goldsmith, Geo. A.,  
     1 Alligator, Captivity.
- Grande-Montagne, H.,  
     1 Double-Crested Cormorant.
- Greenberg, Miss Fanny,  
     1 Yellow-bellied Sapsucker.
- Greenberg, Morris,  
     1 Sea Urchin, Locality unknown.
- Graenicher, Dr. S.,  
     3 Caterpillars,  
     14 Crustacea,  
     13 Fishes,  
     1 Grass Snake,  
     1053 Insects, Lake County, Ill.  
     1802 Insects.
- Greuling, Walter,  
     1 Olive-backed Thrush.
- Gronik, J.,  
     1 Ruby-throated Hummingbird.
- Guequierre, John,  
     1 Hen's Egg, (malformation).
- Hanneman, Miss Ruth,  
     1 Canadian Warbler.
- Harmon, Edward,  
     1 Kingfisher.
- Hartzell, S. A.,  
     1 Sphinx Moth.
- Hayssen, H. H., Chunchula, Ala.,  
     3 Chameleons, Chunchula, Ala.  
     2 Ground Rattlers, Chunchula, Ala.  
     15 Insects, Chunchula, Ala.  
     1 Midget Snake, Chunchula, Ala.

Heath, Stuart,	
1 Bullhead,	
1 Fox Sparrow,	
1 Hawk Moth,	
1 Nest of Yellow Warbler (?),	
3 Toads,	
Heibler, Eddie,	
1 Ovenbird.	
Heidmann, Henry,	
1 Coati,	Captivity.
Heim, Miss Gretchen,	
1 Rose-crested Cockatoo,	Captivity.
Heim, Mrs. Margaret,	
2 Finches,	Captivity.
Heinen, Arnold,	
5 Insects,	
Hennei, Edmund,	
1 American Robin,	
Hennekemper, Mrs. Nellie F.,	
1 Sulphur-crested Cockatoo,	Captivity.
Herd, John Victor,	
2 Pied Rats,	
Herzfeld, Max,	
5 Iguanas,	Mexico.
Hetzel, William,	
1 Little Brown Bat,	
Heyn, Louis,	
1 Black-throated Green Warbler,	
Himmelstein, George,	
1 Double-crested Cormorant,	
Hirsch, Herman,	
1 Bat,	
Hirsch, Leslie,	
2 Western Painted Terrapins,	
Hoehnen, John, and Clements Sowinski,	
1 Mud Puppy,	

Hoffmann, Mrs. E.,  
30 Mollusks.

Holub, Leroy,  
1 Western Painted Tortoise.

House, Horace,  
12 Insects.

Hupfer, Mrs. R.,  
1 Tree Toad.

Husbye, Miss Esther,  
1 Brown Creeper,  
1 Hermit Thrush.

Johnson, Harold,  
1 Ovenbird.

Johnson, Paul F.,  
1 Mourning Warbler.

Just, George,  
1 Crane Fly.

Just, Herman,  
2 Insects.

Kamke, Mrs. Emma,  
1 Spiny Slug Moth.

Kane, Miss Florence J.,  
1 Crustacean.

Kanitz, Fred W.,  
1 Saw-whet Owl.

Karger, Frank,  
1 Ovenbird.

Katze-Miller, A. C.,  
1 Batrachian,  
1 Cricket Frog,  
49 Insects,  
1 Ovenbird.

Katze-Miller, Carlton,  
29 Insects,  
1 Horned Lizard,  
3 Lizards,

Northern Texas  
Northern Texas.

- Kaul, Alfred, North Milwaukee, Wis.,  
1 American Robin and Four Eggs,  
1 Sparrow Hawk,  
1 Weasel.
- Kehding, E.,  
1 Bat.
- Kelley, Edward,  
1 Western Painted Terrapin.
- Kelley, Miss Julia,  
1 Grey-cheeked Thrush,  
1 Red Squirrel.
- Kelling, Elmer H.,  
1 Brown Creeper.
- Kenney, Albert,  
1 Fox Sparrow.
- Kesten, Paul,  
1 Olive-backed Thrush.
- Kiefer, Jacob,  
1 Gray-cheeked Thrush.
- Kilian, Herbert,  
1 Sora.
- Kissner, Miss Norma,  
1 Tarantula, Probably Central America.
- Koch, Miss Gretchen,  
1 Paraquette, Captivity.
- Koch, Miss Harriet,  
1 Ovenbird.
- Konrad, John,  
1 Spider and lot of young in bunch of bananas.
- Koopmann, Miss E.,  
1 Short-eared Owl.
- Kostka, Miss Lillian,  
1 Tree Sparrow.
- Kraatz, Walter C.,  
15 Insects.



- Krueger, Willie,  
1 Snapping Turtle.
- Kumm, Leo,  
1 Water Thrush.
- Kuntz, Edmund, and Joe Webber,  
1 Spider with Nest.
- Ladwig, Armand,  
1 Hummingbird.
- Lahmann, Captain William,  
1 Lake Herring, Lake Michigan.  
1 Lake Trout, Lake Michigan.
- Landcinger, Anthony A.,  
4 Insects,  
1 Little Brown Bat.
- Latschaw, I. E., Fountain City, Wis.,  
1 Little Brown Bat.
- Laur, Mrs. Paulina,  
3 Fresh-water Clams.
- Lecher, Paul,  
1 Fox Sparrow.
- Lee, Elmer,  
1 Ovenbird.
- Leidy, Miss Edna,  
1 Yellow-bellied Sapsucker.
- Leubner, Gustave,  
1 American Robin.
- Lick, Fred.,  
1 Garter Snake.
- Lick, William,  
1 Western Painted Tortoise.
- Lieberherr, Jacob,  
1 Woodcock.
- Loomis, George,  
1 Yellow-bellied Sapsucker.
- Luening, Albert,  
1 Sphinx Moth.

- Luetzow, Miss Ruth,  
1 Sora.
- MacIntosh, Douglas,  
1 Beetle.
- Marchi, Enrico,  
1 Boa Constrictor, Guatemala.
- Martin, W. J.,  
1 Hoary Bat.
- Matzen, Miss Irene,  
1 Ovenbird.
- McDonald, Miss Louise,  
1 Sphinx Moth.
- McGlynn, Miss Ida,  
1 American Robin.
- McGregor, John,  
1 Painted Turtle emerging from egg.
- McHugh, P. H.,  
1 Tarantula, Probably Central America.
- McNaughton, Frank,  
1 Clam Shell.
- Melcher, W. S., Hartford, Wis.,  
1 Trunk of Sapling, 1 Branch, 4 Chips gnawed by  
Beavers.
- Metrie, Eddie,  
1 Hermit Thrush.
- Michaels, Sol.,  
1 Short-eared Owl.
- Miller, Miss Elsa L.,  
1 Moth,  
1 Red-headed Woodpecker
- Miles, Willis,  
1 Goldfinch.
- Moeder, Miss Mollie,  
1 Screech Owl.
- Mohr, Ernst John,  
1 De Kay's Snake.

- Mohr, H., Kilbourn, Wis.,  
1 Red-tailed Hawk.
- Monroe, Charles E.,  
1 Nest of Red-eyed Vireo, with two Cowbird Eggs.
- Morris, Mrs. Mary,  
1 Grasshopper.
- Morton, K. J., Edinburgh, Scotland,  
94 Insects, Europe.
- Moser, Walter, Fountain City, Wis.,  
7 Little Brown Bats.
- Mueller, Miss Freda.,  
1 Yellow-bellied Sapsucker.
- Muttkowski, John, White Earth, N. D.,  
1 Insect, White Earth, N. D.
- Muttkowski, Richard A.,  
21 Insects,  
1 Reptile.
- Muttkowski, Miss Theresa,  
1 Parsley Caterpillar.
- Myers, Mrs. A. W.,  
10 Mollusks, Bermudas.  
11 Protozoans, Bermudas.
- Nehrling, Miss Lydia,  
2 Insects.
- Neyses, Miss Susan,  
1 Bumblebee.
- Nickel, John,  
1 Double-crested Cormorant.
- Nordgren, Rev. P. E., Kenosha, Wis.,  
30 Mollusks, Lake Chautauqua, Chautauqua, Co., N. Y.
- O'Connell, Miss Dorothy,  
2 Western Painted Terrapins.
- Odenbrett, William,  
1 Steelhead Trout, Manistee River, Mich.
- Ott, Charles,  
1 Crustacean, Lake Michigan.

- Otter, James,  
     1 Herring Gull.
- Owens, Miss Maura M.,  
     1 Hummingbird.
- Pagel, A.,  
     4 Vesper Rats,                      Probably Central America.
- Pampel, Fred.,  
     1 Hoary Bat.
- Park Commissioners,  
     4 Baboons,                      Captivity, Washington Park Zoo.  
     2 Bald Eagles,  
     1 Blackheaded Goose,  
     6 Canada Goose Eggs,  
     1 California Quail,  
     1 Cardinal,  
     1 Fawn,  
     2 Flamingoes,  
     1 Green Jay,  
     1 Lady Amherst Pheasant,  
     2 Leopards, (young),  
     1 Macaque Monkey,  
     1 Parrot,  
     1 Reeve's Pheasant,  
     1 Rhesus Monkey,  
     1 Sooty Mangabey,  
     1 Tapir,  
     1 Timber Wolf,  
     1 Virginia Deer,  
     1 Virginia Opossum,  
     1 Whistling Swan.
- Pearse, A. S., Manila, P. I.,  
     1 Dragonfly,                      Manila, P. I.
- Peckham, Dr. George W.,  
     1 Collection of Spiders (approximately 4000). Various.  
     1 Spider,                      Altoona, Pa.
- Pett, Harold,  
     1 Hoary Bat.
- Pfannerstill, George,  
     1 Mouse.

- Phinn, Mortimer, Beloit, Wis.,  
1 Watersnake and nine young.
- Podolsky, Louis,  
1 American Robin.
- Pollock, Max.,  
1 Yellow-bellied Sapsucker.
- Posson, A. C.,  
1 Flying Squirrel,  
1 Yellow-bellied Sapsucker.
- Posson, Peter E.,  
1 Cecropia Moth.
- Purdy, S. V. B.,  
25 Insects.
- Raynor, H. B.,  
1 Great Blue Heron.
- Reckmeyer & Co., Wm.,  
1 Headskin of Timber Wolf.
- Reed, Lawrence,  
1 Kingfisher.
- Reinisch, Miss Elizabeth,  
1 Brown Creeper.
- Reinisch, William,  
1 Red Bat.
- Richards, George, and Carl Sonnenberg,  
1 Larva enclosed in wood.
- Richter, Gordon,  
1 Western Painted Tortoise.
- Rickert, J. W., South Milwaukee, Wis.,  
1 Woodchuck.
- Rindskopf, Elias,  
1 Horsefly.
- Ringling Bros., Baraboo, Wis.,  
1 Northern Giraffe, Captivity.
- Rodig, J. J.,  
1 Lop-eared Rabbit.

- Rohde, Paul C.,  
    8 Crayfish,  
    8 Fishes.  
19 Insects,  
    3 Mollusks,  
    2 Shrews.
- Rom, Roy,  
    1 Flying Squirrel.
- Rothrock, Boyd P.,  
    3 Copperhead Snakes and skeleton of same,  
Neuville, Pa.
- Ruehle, Erich,  
    1 Sphinx Moth.
- Ruenzel, H. G.,  
    3 Birds' Nests.
- Russel, Howland,  
    1 Snake.
- Ryan, D. F.,  
    1 Brown Thrasher.
- Sanger, Edwin,  
    1 Western Painted Tortoise.
- Sauerbreit, August,  
    1 American Long-eared Owl.
- Schade, Max.,  
    1 Snake.
- Scheiderer, Clarence,  
    1 Western Painted Tortoise.
- Scheel, Miss Elsie,  
    1 Cedar Waxwing.
- Schemiaczky, Samuel,  
    1 Sora.
- Scheuermann, Philip,  
    1 Moth,  
    1 Wood-boring Beetle.
- Schlaugk, Harry,  
    1 Flicker.

- Schmidt, A.,  
 1 Insect, Colorado.  
 3 Insects.
- Schmitt, F. L.,  
 1 Silver Baldhead Trumpeter.
- Schoenebeck, A. J., Lena, Wis.,  
 8 Red backed Sandpiper.  
 4 Nestling Broad-winged Hawks,  
 3 Rabbits,  
 5 White-footed Deer Mice.
- Schramel, John,  
 1 Rose-breasted Grosbeak.
- Schultz, Eric,  
 1 Sphinx Moth.
- Schwartz, Richard,  
 1 Whip-poor-will.
- Schroeder, Miss Sylvia,  
 1 Brown Thrasher.
- Seefeld, Herman,  
 1 Mud Puppy.
- Segall, William,  
 1 Olive-backed Thrush.
- Segnitz, Paul,  
 4 Insects.
- Senn, Alfred,  
 1 Beetle.
- Severance, Dean,  
 1 Western Painted Terrapin.
- Shand, William,  
 2 Beetles, Bloomfontein, Orange River Colony,  
 South Africa.  
 1 Chameleon, Bloomfontein, Orange River Colony,  
 South Africa.
- Shapiro, Henry,  
 1 Gray-cheeked Thrush.
- Sherman, Dr. Lewis,  
 2 Beetles.

- Shields, Philipp,  
1 Bull Frog.
- Shrosbee, George,  
1 Twig of Maple infected by cottony maple scale.
- Sieglauff, Ernst,  
1 Western Painted Terrapin.
- Simon, Ludwig,  
1 Red Bat.
- Sivyer, Benjamin E.,  
1 Chipmunk.
- Smith, W. C., Wauwátosa, Wis.,  
1 Little Green Heron.
- Snyder, W. E., Beaver Dam, Wis.,  
86 Insects.
- Sommers, Irving,  
1 Mouse.
- Soulen, Miss Jennie,  
1 Bat.
- Southcott, Charles,  
1 Cooper's Hawk.  
1 Gray Squirrel.
- St. Clair, Melvin,  
1 Wood Pewee.  
30 Mollusks.  
3 Mollusks.
- Stockinger, Mrs. Elizabeth,  
1 Insect.
- Stoddard, Herbert L.,  
1 Antler Beetle, Florida.
- Struve, Walter,  
1 Brown Thrasher.
- Sweemer, William,  
1 Myrtle Warbler.
- Tabor, Miss Katherine,  
3 Painted Turtles.



- Tesch, Charles H., Wauwatosa, Wis.,  
2 Flying Squirrels,  
58 Insects.
- Tesch, Mrs. Charles H., Wauwatosa, Wis.,  
1 Cecropia Caterpillar.
- Tess, Mrs. C. M., New Coeln, Wis.,  
1 Red-tailed Hawk.
- Thaney, John,  
1 Tiger Salamander.
- Tobin, Frank E.,  
151 Insects.
- Todeff, Miss Rose,  
1 Wood Thrush.
- Torelle, Miss Ellen,  
1 Insect, St. Louis, Mo.
- Tornow, Miss Margaret,  
1 White-throated Sparrow.
- Tyler, Willis, Wauwatosa, Wis.,  
3 Snakes.
- Van Altena, Wm. P.,  
1 Pine Grosbeak.
- Vanselow, Herman, South Milwaukee, Wis.,  
2 Pigeons.
- Uihlein, August,  
1 Hippopotamus, Tona River, British East Africa.
- Uihlein, Mrs. Joseph,  
1 Insect.
- Walter, Rudolph,  
1 Storer's Snake.
- Ward, Henry L.,  
9 Insects,  
5 Insects and two cigars riddled by same, Manila, P. I.  
24 Mollusks.
- Waters, Harry,  
1 Garter Snake.

Watts, Miss Helen,	
1 Yellow-bellied Sapsucker.	
Welke, Mrs. J.,	
1 Horned Lizard,	California.
Wells, Jr., J. W., St. Petersburg, Fla.,	
1 Ostrich,	St. Petersburg, Fla.
Wetzel, Miss Violet,	
1 Golden-crowned Kinglet.	
Wiediger, Adolph,	
1 Brown Creeper.	
Wikkerink, Roy,	
1 Corn Snake.	
Winkel, Wm. J.,	
1 Little Brown Bat.	
Winkler, Paul,	
1 Yellow-bellied Sapsucker.	
Wirtish, Frank,	
1 Bronzed Grackle,	
1 Hermit Thrush.	
Wisniewski, B.,	
1 American Bittern.	
Wolcott, A. B., Chicago, Ill.,	
4 Insects,	Hessville, Ind.
Wright, Justin,	
1 Yellow-billed Cuckoo.	
Young, Oscar,	
1 Ovenbird.	
Zacher, Harry,	
1 Kingfisher.	
Zacheriasen, Francis,	
2 Western Painted Terrapins.	
Zarling, Fred.,	
1 Sora.	
Zarling, Robert,	
1 Wilson's Thrush.	
Zartoon, Mallof,	
1 Tarantula and Nest,	Probably Cuba.

**Museum Expeditions.**

151	Batrachians and Reptiles,	
539	Birds,	
22	Birds' Eggs,	
19	Birds' Nests,	
28	Crustaceans,	
92	Fishes,	
393	Insects,	Waukegan, Ill.
9204	Insects,	
507	Mammals,	
3	Mammal Nests,	
204	Mollusks,	
4	Protozoans,	

**By Exchange.**

1	Bird,
495	Insects.

**By Purchase.**

942	Birds,	California.
2	Crustaceans,	Puget Sound, Wash.
1	Elephant,	Africa.
1	Fish, cast,	New York.
25	Fishes, (mounted),	Hawaiian and Bahama coasts.
1	Galapagos Turtle,	Ecuador.
1	Hermit Crab with Sea Anemonies,	Atl. Coast, U. S.
1028	Insects,	U. S., Canada and Germany.
140	Mammals,	California.
51	Mammal Skulls,	California.
1	Model of Bee,	Europe.
12	Metamorphosis Insects,	Europe.
7	Mollusks,	United States.
1	Narwhal Tusk,	Greenland.
10	Protozoans,	Various localities
11	Reptiles and Batrachians,	Various localities.
1	Timber Wolf,	
1	Walrus Skin,	Greenland.

**Casts Made at the Museum.**

2	Batrachians,
11	Fishes,
1	Reptile.

**BOTANY.****Donations.**

Altschwager, Hugo,	
11 Plants.	
Barrett, Dr. S. A., and B. H. Brah,	
6 Plants.	
Benke, H. C., Manitowoc, Wis.,	
250 Plants.	
Brown, Charles E., Madison, Wis.,	
14 Plants.	
Brues, Charles T., Boston, Mass.,	
1 Spanish Moss,	St. Augustine, Fla
Brues, Charles T., and Mrs. C. T. Brues, Boston, Mass.	
57 Plants.	
Canadian Government,	
2 Plants,	Canada.
Congdon, J. W., La Crosse, Wis.,	
6 Plants.	
Finger, William,	
43 Plants.	
Graenicher, Dr. S.,	
3 Plants,	
29 Plants,	Beach, Lake Co., Ill.
Hitchings, Brooks,	
2 Plants.	
Laue, A. F.,	
1 Mushroom.	
Lewis, Miss Marie L.,	
1 Plant.	
MacLaren, William,	
6 Plants,	Asheville, N. C.
Monroe, Charles E.,	
39 Plants.	
Muttkowski, Richard A.,	
2 Plants.	

Ogden, Dr. H. V.,  
8 Plants.

Smith, W. I., Lund Landing, Ark.,  
4 Specimens of Cotton Bolls, Lund Landing, Ark.

Stewart, Miss M. E.,  
1 Photograph of Tree,  
3 Plants.

Tesch, Charles H., Wauwatosa, Wis.,  
1 Plant,  
1 Tumbleweed.

Tiefenthaler, Miss Laura,  
1 Giant Mushroom.

#### Museum Expedition.

1005 Plants,  
18 Plants, Beach, Lake Co., Ill.  
91 Plants, Navaho County, Ariz.

#### PALEONTOLOGY.

##### Donations.

Johnson, E. R.,  
Collection of Fossils.

Krueger Brothers, Oconomowoc, Wis.,  
1 Stromatoporoid.

Stewart, Miss M. E.,  
1 Lot of Fossils.

#### MINERALOGY AND GEOLOGY.

##### Donations.

Artus, J. G.,  
1 Erosion, simulating a human face.

Barrick, Edward,  
1 Pyrite, Charles City, Ia.

Brader, N. M.,  
1 Baculite, Colorado.

Brickner, Wm. B., 2 Copper Ore,	Butte, Mont.
Burgess, Dr. A. J., 1 Weathering,	Locality unknown.
Joehlin, Wm., 1 Copper Ore.	
Kalhardt, H., 1 Native Copper,	Egg Harbor, Mich.
Kreuter, Mrs. F. A., 1 Geyserite,	Yellowstone National Park.
Messmer, Charles, Ft. Atkinson, Wis., 1 Agate.	
Nunnemacher, Robert, 4 Agates,	Locality unknown.
Polasky, David, 1 Carborundum,	Niagara Falls, N. Y.
Richter, E. F., 1 Erosion.	
Stanek, Tonie, 1 Rock.	
Stewart, Miss M. E., 9 Minerals,	Various localities.
Van Ess, Louis, 1 Chalcopyrite,	Locality unknown.
Van Vechten, H. C., Racine, Wis., 1 Oil Sand, 2300 feet depth, 2 Pictures of oil well,	Pennsylvania. Pennsylvania.
Ward, Henry L., 174 Minerals,	Various localities.
Wilson, Miss Winnie M., St. Louis, Mo., 2 Minerals,	Various localities.
Zirbes, A. W., White Earth, N. D., 2 Pyrites,	White Earth, N. D.

#### By Purchase.

- 1 Automatic Tellurian.

## ARCHEOLOGY.

## Donations.

- Brady, J. F.,  
1 Hematite Nodule, Canon de Chelley, Ariz.
- Elkey, W. H.,  
1 Fake Copper Knife.
- Evans, John W.,  
1 Large bird-form Stone Pipe (fake), United States.
- Hinz, Miss Della,  
1 Flint Spearhead.
- Joers, Paul M.,  
3 Photographs of Mounds.
- Johnson, Carl, Frazer, Wis.,  
1 Copper Wedge.
- Ringeisen, Joseph,  
1 Photograph showing three views of Fluted Axe.
- Schoellkopf, H.,  
1 Copper Knife.
- Skavlem, H. L., Janesville, Wis.,  
1 Small Stone Celt.
- Swain, J. W.,  
2 Potsherds.
- Traver, F. A.,  
1 Cliff Dweller's Pot. Mancos, Col.
- Ward, Henry, L.,  
8 Specimens, Various localities.
- West, George A.,  
1 Piece partly worked Copper from a mound.  
1 Sioux Maul, Gothenburg, Neb.
- Wheeler, R. P.,  
30 Flints,  
1 Lead.

## By Purchase.

- 18 Arrowheads,  
1 Bird Stone Ceremonial,  
1 Copper Celt,





- 
- Field Museum of Natural History, Chicago,  
16 Photographs, S. W. United States.
- Flanders, Miss Mary F., Alamosa, Col.,  
1 Sampler, United States.  
1 Water Color Drawing.
- Fundebund, John C.,  
1 Pipe Case, India.
- Habhegger, Otto J.,  
2 Old Typewriters, United States.
- Harders, Rev. J. F. G., Globe, Ariz.,  
1 Grass Sandal, Roosevelt, Ariz.
- Heath, Stuart,  
1 Cartridge, United States.
- Hoffmann, C. W.,  
1 Almanac, 1783, Saxony.
- House, Horace,  
1 Agate Charm, Germany (?)  
1 Work Check, Rescue Mission.
- Kalhardt, H.,  
1 Carved Bowl, Germany.  
1 Sword, Germany.
- Levine, Lewis G., Philadelphia, Pa.,  
1 Button, Hungary.
- Marshall, Mrs. Mary, Waupun, Wis.,  
1 Japanese Silk Scarf, Japan.
- Milwaukee Press Club,  
1 Birch Bark Canoe.
- Nunnemacher, Robert,  
23 Specimens, Various localities.
- Opris, Joseph,  
1 Weaving Comb, Roumania.
- Puliafita, Anthony,  
1 Copy Boston Gazette & County Journal, 1770, Boston.
- Retzeus, Prof. C.,  
2 Photos of Laplanders in Costume, Stockholm, Sweden.
- Rocah, Mr. and Mrs. Samuel,  
1 Homespun Apron, Hungary.

Rohde, Paul C.,		
1 Dress Train Hanger,		Locality unknown.
Samson, Wm. H., Rochester, N. Y.,		
1 Letter written May 7, 1849.		
Stewart, Miss M. E.,		
229 Specimens,		United States.
Stirn, August,		
26 Ivory Carvings, "Chess Men",		Japan.
1 Ruling Pen, old style.		
1 Watch Stand,		Germany.
Tannenbaum, Ely,		
1 Pocket Knife,		Russia.
Tonndorf, Carl,		
1 Photo Enlargement of Admiral W. S. Schley, U. S. N.		
Wilcomb, C. P., Oakland, Cal.,		
5 Photos of Colonial Rooms of Oakland Public Museum.		

#### Museum Expeditions.

3577 Specimens Hopi Indian artifacts, etc.,	Arizona.
---	----------

#### By Purchase.

1 Beaded Pouch,		
1 Beaded Vest,		Plains.
1 Ceremonial Paddle,	Hervey or Cook Islands.	
1 Dress,		Africa.
1 Drum and four stakes,		Nebraska.
1 Engraved Print "City of Milwaukee",		
1 Jivaro Shrunken Head,	Jivaro, So. America.	
1 Mat,		Africa.
1 Pair Moccasins,		
602 Specimens,	Congo River, Africa.	
11 Specimens,	N. W. Coast and Alaska.	
293 Specimens,	Various localities.	
3 Tlingit Indian Baskets.	British Columbia.	

#### EDUCATION.

Burrill, A. C.,	
4 Lantern Slides.	
Lucas, Dr. F. A., New York City,	
4 Lantern Slides of Whale Subjects.	

- Muttkowski, R. A.,  
     7 Lantern Slides.
- Nash, Mrs. H. W.,  
     1 Lantern Slide and print.
- Seton, Ernest Thompson,  
     2 Photographs.
- Surface, Prof. H. A., Harrisburgh, Pa.,  
     3 Photographs.
- United States Forest Service, Washington,  
     1 Lantern Slide.
- Woodruff, Frank M., Chicago, Ill.,  
     7 Lantern Slides.

**By Purchase.**

- 13 Lantern Slides.

**Made at the Museum.**

- 278 Lantern Slides.

**NUMISMATICS.**

- |  |                |
|--|----------------|
| Bahlke, Robert,                        |                |
| 1 Silver Coin,                         | Turkey.        |
| Barrett, Dr. S. A.,                    |                |
| 1 Nickel, 1866 (small date),           | United States. |
| Brickner, Wm. B.,                      |                |
| 1 Five Cents, 1910,                    | United States. |
| Borenstein, Nathan, Red Granite, Wis., |                |
| 1 One-half Kopeck, 1798,               | Russia.        |
| Buenger, Harry F.,                     |                |
| 1 Five Cents, 1886.                    | England.       |
| 1 Six Pfennig, 1810,                   | Bavaria.       |
| Dimew, Traico,                         |                |
| 1 One Para, copper,                    | Turkey.        |
| 1 One-half Para, copper,               | Turkey.        |

Eichfeld, Henry E.,		
1	Lincoln Penny, 1910,	United States.
1	One Cent, 1908,	United States.
1	One Cent, 1909,	United States.
Finkelstein, David,		
1	One Cent, 1881,	Canada.
Fundebund, John C.,		
1	Bronze Medal, 1893,	Holland.
Glick, Miss Eva,		
1	One Cent,	Mexico.
Heath, Stuart,		
1	Cash,	China.
1	Copper Cent, 1901,	Netherlands.
1	Two Kreutzer,	Hungary.
Hoffman, C. W.,		
1	One Pfennig, 1736,	Saxony.
Holsted, John, Sheboygan, Wis.,		
7	Coins,	U. S., Peru, Bavaria.
Iwkoff, Ilia,		
1	Twenty Ctotinki, 1906,	Bulgaria.
Kinovsky, Bennie,		
1	Copper Coin, 1902,	Austria.
Leppanen, Unno,		
1	Five Kopeck, 1836,	Russia.
Mann, Charles L.,		
1	Millard Fillmore Silver Médal, 1850,	U. S.
Marks, Miss Myrtle,		
1	Ten Cash,	China.
Marks, Miss Nora,		
1	Copper Coin, 1882,	Hungary.
Niceloff, Angel,		
1	One Para,	Turkey.
Niceloff, Mike,		
2	Five Bani, 1905 and 1906,	Roumania.
1	Token,	Canada.
Nunnemacher, Robert,		
1	Bronze Medal, commemorative of the Unveiling of the Monument of Queen Elizabeth of Austria, 1907.	

- Petkott, Pit,  
     1 Five Stolinki, 1888, Bulgaria.
- Piglowski, John,  
     1 Bronze Medal, United States.
- Siegal, Isadore,  
     1 Copek, 1896, Russia.
- Stewart, Miss M. E.,  
     2 Fifty Centavos, Nicaragua.  
     2 Five Centavos, Nicaragua.  
     1 One Kopeck, Russia.
- Stirn, August,  
     1 Hard Time Copper Token, 1837, United States.  
     1 Half Dime, 1850, United States.  
     1 One Dime, 1874, United States.  
     1 One Dime, 1876, United States.  
     1 Quarter Dollar, gold, United States.  
     1 "Schilling Courant," 1775, Germany.  
     1 Ten Cents, paper, 1864, United States.  
     1 Twenty-five Cents, paper, 1864, United States.
- Swallow, Mrs. Fanny L.,  
     2 Five Dollars, Bank Note, United States.  
     2 Ten Dollars, Bank Note, 1854, United States.  
     1 Ten Dollars, Bank Note, 1854, United States.
- Szuszalski, Tony,  
     1 Medal of National Educational Association, 1897,  
         Milwaukee.
- Todeff, Misho,  
     1 One Para, Turkey.
- Ward, Henry L.,  
     1 Five Cents, 1911, United States.
- Warnke, Gordon,  
     1 Fifty Cents, Confederate, 1863, United States.  
     1 Twenty-five Cents, Confederate, 1863, United States.
- Wilson, Miss Winnie M., St. Louis, Mo.,  
     1 Bronze Medal, commemorative of Trans-Continental  
         R. R., 1869, United States.

#### Nunnemacher Collection.

- Best, Fred. C.,  
     1 Palmer Carbine, 1865, Windsor, Vt.

Heyn, Herman,		
2 Gun Barrels,		United States.
1 Gun Cylinder,		United States.
2 Repeating Rifles,		United States.
Melcher, W. S.,		Hartford, Wis.
1 Pepperbox Pistol.		
Nunnemacher, Robert,		
1 Inlaid Flint-lock Musket,		Persia.
2 Revolvers,		U. S. and Germany.
Pupikofer, E. O.,		
1 Revolver,		Cuba.
Ralfs, Mrs. A.,		
1 Muzzle-loading Shot Gun,		Locality unknown.
Saxton, Willie,		
1 Long-barreled Musket,		Locality unknown.
Stewart, Miss M. E.,		
1 Cartridge,		United States.

#### By Purchase.

1 Gun, remodeled Chassepot,		France.
21 Swords, Spears and Arrows,		Various localities.
1 Vetterli Repeating Rifle,		Italy.

#### LIBRARY.

##### By Donation and Exchange.

Alabama—Geological Survey of Alabama University,  
Bulletins 3, 10, 11.

Arizona—Agricultural Experiment Station, Tucson,  
Bulletins 64, 65.

California—Board of Park Commissioners, San Francisco,  
40th Annual Report.

California Mining Bureau, San Francisco,  
Bulletins 58, 62.

Leland Stanford Junior University, Stanford Uni-  
versity,  
Publications 3, 4, 5, 6.  
University Series, Nos. 1, 2.

**Oakland Public Museum, Oakland,**  
Annual Reports, 1 and 2.

**Pomona College, Claremont,**  
Journal of Entomology, Vol. 3.

**Society of California Pioneers, San Francisco,**  
Catalogue of Coins and Medals belonging to the Society  
of California Pioneers.

**University of California, Berkeley,**  
American Archaeology and Ethnology, Vol. 10.

**Agricultural Experiment Station,**  
Bulletins 207, 208, 214, 215, 217.  
Publication, Geology, Vol. 6.  
Publication, Zoology, Vol. 8.

**Colorado—Colorado College, Colorado Springs,**  
Publications, Science Series, Vol. 12, Nos. 8, 9.

**University of Colorado, Boulder,**  
Studies, Vol. 8.

**Connecticut—Agricultural Experiment Station, Hartford,**  
Annual Reports, 33rd and 34th.  
Bulletin 167.

**Connecticut Historical Society, Hartford,**  
Annual Reports, 1910, 1911.

**State Geological and Nat. History Survey, Hartford,**  
Bulletins 13, 15, 16, 17.

**Yale University Library, New Haven,**  
Memoirs, Vols. 2 and 3,  
Transactions, Conn. Academy of Arts and Sciences, Vols.  
1, 9, Vol. 10, Part 1.

**Delaware—Agricultural Experiment Station, Newark,**  
Bulletins 90, 91, 93.

**Florida—Agricultural Experiment Station, Gainesville,**  
Bulletins 103, 104, 106.

**State Geological Survey, Tallahassee,**  
Bulletin No. 2,  
Third Annual Report.

**Georgia—Agricultural Experiment Station, Experiment,**  
Bulletin 92.

**Illinois—Agricultural Experiment Station, Urbana,**  
Circular 149.

**Augustana College, Rock Island,**  
Publication No. 7.

**Chicago Academy of Sciences, Chicago,**  
Special Publications, Nos. 1 and 3.

**Field Museum of Natural History, Chicago,**  
Anthropological Series, Vol. 1, No. 1,  
Geological Series, Vol. 3, No. 8,  
Ornithological Series, Vol. 1, No. 6,  
Report Series, Vol. 4,  
Zoological Series, Vol. 10, No. 4.

**Illinois State Geological Survey, Urbana,**  
Bulletins 9, 10, 11, 14, 16.

**Illinois State Laboratory of Natural History, Urbana,**  
Bulletin, Vol. 9,  
Fishes of Illinois, Vol. 3 and Maps.

**John Crerar Library, Chicago,**  
Sixteenth Annual Report.

**Indiana—Department of Geology and Natural Resources, Indianapolis,**  
Annual Reports, 34th and 35th.

**Indiana Academy of Sciences, Indianapolis,**  
Proceedings, 1909, 1910.

**Indiana University, Bloomington,**  
Studies, Vol. 8.

**Iowa—Academy of Sciences, Des Moines,**  
Proceedings, Vol. 17.

**Iowa State College of Agriculture and Mechanic Arts, Ames,**  
Buchanan, *Monascus Purpureus* in Silage,  
Bulletin 116, Experiment Station,  
Pammel, Poisonous and Medical Plants of Missouri,  
The Grasses of Iowa, Part 2.

**State Geological Survey, Des Moines,**  
Annual Report, Vol. 20,  
Bulletin 1.

**University of Iowa, Iowa City,**  
Bulletin from the Laboratories of Natural History, Vol. 6,



**Kansas**—Agricultural Experiment Station, Manhattan,  
Bulletins 168, 173, 175.  
Circulars 16, 17.

**Kansas Academy of Science**, Topeka,  
Transactions, Vols. 23, 24.

**Kansas State Entomological Commission**, Topeka,  
Reports, 1907-08, 1909-10.

**State Historical Society**, Topeka,  
Kansas Historical Collections, Vols. 8, 11.

**University of Kansas**, Lawrence,  
Bulletin, Vol. 11,  
University Geological Survey, Mineral Resources, 1897,  
1899, 1900-01, 1903.  
University Geological Survey, Vols. 3, 5-9.

**Kentucky**—Agricultural Experiment Station, Lexington,  
Bulletin 151.

**Louisiana**—Louisiana State Museum, New Orleans,  
Bulletin No. 1, Natural History Survey.

**Maine**—Agricultural Experiment Station, Orono,  
Apple Tree Insects of Maine,  
Bulletins 180, 181, 182, 185, 187, 190,  
Four Insect Pests.

**Maryland**—Geological Survey, Baltimore,  
Reports, Vols. 1, 3.

**Johns Hopkins University**, Baltimore,  
Notes from the Zoological Laboratory, 1911.

**Massachusetts**—American Academy of Arts and Sciences, Boston,  
Fernald, A Botanical Expedition to Newfoundland and  
Southern Labrador,  
Proceedings, Vols. 46, 47.

**Essex Institute**, Salem,  
Annual Report, 1911.

**Mead, Miss Francis H.**, Cambridge,  
Journal of American Folk-Lore, Vol. 24.

**Museum of Comparative Zoology**, Cambridge,  
Annual Report of Curator, 1910-11,

**Museum of Fine Arts**, Boston,  
Annual Report, 35th,  
Bulletin, Vol. 9.

**Museum of Natural History, Springfield,**  
Fortieth Annual Report City Library Association,  
Reports, 1909-1911.

**Peabody Academy of Science, Salem,**  
Memoirs, Vols. 1-2,  
The Whaling Industry.

**Peabody Museum of American Archeology and Eth-  
nology, Cambridge,**  
Memoirs, Vol. 5,  
Papers, 1910, 1911.

**Michigan—Academy of Sciences, East Lansing,**  
12th Report.

**Detroit Museum of Art, Detroit,**  
Annual Report, 1910,  
Bulletin, Vol. 5,  
Handbook of Paintings by Old Masters.

**Etzenhouser, R., Detroit,**  
Etzenhouser, Engravings of Prehistoric Specimens from  
Michigan.

**Geological Survey, Lansing,**  
An Ecological Survey of Isle Royale, Lake Superior,  
Biological Series, 1-2,  
Geological Series, 1-3,  
Report, 1907-1908.

**Grand Rapids Public Library, Grand Rapids,**  
39th Annual Report Public Library and Kent Scientific  
Museum.

**Michigan Board of Agriculture, Agricultural College,**  
Annual Report, 49th,  
Bulletins 1, 2, 3, 6, 7, 8,  
Special Bulletin, Botanical Department, No. 25.

**University of Michigan, Ann Arbor,**  
Report of Curator of University Museum, 1911,  
University Bulletin, Vol. 12, No. 3.

**Minnesota—Academy of Sciences, Minneapolis,**  
Bulletin, Vol. 4, No. 3.

**Agricultural Experiment Station, St. Anthony Park,**  
18th Annual Report,  
13th Report of State Entomologist.

**Albrecht & Son, St. Paul,**  
Catalogue of Albrecht Furs, 1910-11.

**Geological and Natural History Survey, Minnesota,**  
Minnesota Botanical Studies, Vol. 4.

**Mississippi—Geological Survey, Jackson,**  
Bulletins 1, 4, 7, 8.

**Missouri—Academy of Sciences, St. Louis,**  
Transactions, Vol. 20.

**Bureau of Geology and Mines, Jefferson City,**  
Biennial Reports of the State Geologist, 1907-08, 1909-10.

**City Art Museum, St. Louis,**  
Annual Report, 1910.

**Missouri Botanical Garden, St. Louis,**  
Annual Report, 21st.

**St. Louis Public Schools, Educational Museum, St.  
Louis,**  
Catalogue of Collections for Circular 1911.

**State Historical Society, Columbia,**  
Missouri Historical Review, Vols. 5 and 6.

**University of Missouri, Columbia,**  
Bulletin, Science Series, Vol. 2.

**Montana—Agricultural Experiment Station, Bozeman,**  
Bulletins 80, 82.

**University of Montana, Missoula,**  
Bulletin, Biological Series, No. 15.

**Nebraska—Agricultural Experiment Station, Lincoln,**  
Annual Report, 24th,  
Press Bulletin, 34.

**University of Nebraska, Lincoln,**  
University Studies, Vols. 10, 11.

**New Jersey—Agricultural Experiment Station, New Brunswick,**  
Bulletins 235, 236.

**Geological Survey, Trenton,**  
Annual Report, State Geologist, 1909,  
Bulletins 1-5,  
Geological Survey of N. J., Vol. 7, Iron Mines, 1910,  
Whitfield, Paleontology of the Cretaceous and Tertiary,  
Vols. 1-2.

State Museum, Trenton,  
Annual Report, 1909.

New Mexico—Agricultural Experiment Station, Agricultural College,  
Bulletins 76, 78.

New York—Agricultural Experiment Station, Geneva,  
Annual Reports, 28th and 29th,  
Bulletins 328, 331, 334,  
Technical Bulletins 17, 18.

American Museum of Natural History, New York,  
Annual Reports, 41st, 42nd,  
Anthropological Papers, Vol. 7,  
Bulletins, Vols. 28, 29,  
Guide Leaflets, Nos. 31-33,  
Journal, Vol. 11,  
Miner, A Plan for an Educational Exhibit of Fishes.

Buffalo Society of Natural Sciences, Buffalo,  
Bulletin, Vol. 10.

Columbia University, New York,  
Andrews, Museums of Education, Their History and Use.

Metropolitan Museum of Art, New York,  
Bulletin, Vol. 6,  
Catalogue of a Loan Exhibition of Arms and Armor.

Museum, Brooklyn Institute, Brooklyn,  
Report, 1909,  
The Museum News, Vols. 6, 7.

National Association of Audubon Societies, New York,  
Annual Reports, 1909, 1910,  
Educational Leaflets, 45-51,  
Special Leaflets, 22.

New York Historical Society, Albany,  
Catalogues of Scientific Museums, Hudson-Fulton Celebration,  
The Hudson-Fulton Celebration, Vols. 1-2.

Oneida Historical Society, Utica,  
Year Book, No. 11.

Rochester Academy of Sciences, Rochester,  
Proceedings, Vol. 5.

Saville, M. H., and George G. Heye, New York,  
Saville, Contributions to South American Archaeology,  
Vol. 2.

Staten Island Association of Arts and Sciences, New  
Brighton,  
Museum Bulletin, 1911,  
Proceedings, Vol. 3.

North Carolina—Geological and Economic Survey, Raleigh,  
Biennial Report, 1909-10,  
Bulletin 22,  
Economic Papers, 19-22.

Elisha Mitchell Scientific Society, Chapel Hill,  
Journal, Vol. 27.

Ohio—Agricultural Experiment Station, Wooster,  
Bulletins 214, 223, 225, 226,  
Circular, 115.

Cincinnati Museum Association, Cincinnati,  
30th Annual Report.

Denison University, Granville,  
Bulletin of the Scientific Laboratories, Vol. 16.

Geological Survey of Ohio, Columbus,  
Bulletins 11-13.

Historical and Philosophical Society, Cincinnati,  
Quarterly Publication, Vol. 6.

Lloyd Library, Cincinnati,  
Bibliographical Contributions, Nos. 1-4,  
Bulletin, Pharmacy Series, Nos. 3-4,  
Bulletin, Botany Series, Nos. 1-2,  
Letter No. 28,  
Mycological Notes, No. 36,  
Old Special Series, No. 1,  
Polyporoid Issue, Nos. 1-3.

Ohio Department of Agriculture, Columbus,  
8th and 9th Annual Reports, Division of Nursery and  
Orchard Inspection.

Ohio Naturalist, Columbus,  
Ohio Naturalist, Vols. 11-12.

Ohio State Academy of Sciences, Columbus,  
Proceedings, Vols. 1-5.

**Ohio State Archeological and Historical Society,**  
Columbus,  
Ohio Archeological and Historical Quarterly, Vol. 20.

**Ohio State University,** Columbus,  
Contributions from the Department of Zoology and Entomology, 33, 34.

**Wilson Ornithological Club,** Oberlin,  
Wilson Bulletin, Vol. 23.

**Oklahoma—Agricultural Experiment Station,** Stillwater,  
Bulletins 90-92,  
Circular of Information, Nos. 13, 14.

**Geological Survey,** Norman,  
Bulletins 2, 3, 5-8,  
Circulars, Nos. 1 and 2.

**Pennsylvania—Academy of Natural Sciences,** Philadelphia,  
Proceedings, Vol. 63.

**American Entomological Society,** Philadelphia,  
A History of the American Entomological Society, 1859-1909.

**Carnegie Institute,** Pittsburgh,  
Founders Day, 1911.

**Carnegie Museum,** Pittsburgh,  
Annals, Vol. 7,  
Annual Report, 14th.

**Delaware County Institute of Science,** Media,  
Proceedings, Vol. 6.

**Geographical Society of Philadelphia,**  
Bulletin, Vol. 9.

**Moore, Clarence B.,** Philadelphia,  
Moore, Antiquities of the St. Francis, White and Black  
Rivers, Arkansas,  
Moore, Some Aboriginal Sites on Mississippi River.

**Pennsylvania Museum and School of Ind. Art,** Philadelphia,  
Annual Reports, 34th and 35th,  
Bulletin, Vol. 9.

**Pennsylvania State Department of Agriculture, Harrisburg,**

Bi-Monthly Zoological Bulletin, Vol. 1,  
Bulletin, Division of Zoology, Vol. 1, Parts 1-4, 7-8;  
Vol. 2, Parts 3, 9, 11, 12.

**Philadelphia Museums, Philadelphia,**  
The School Museum in Its Relation to the Geography and  
Commerce.

**University of Pennsylvania, Philadelphia,**  
Contributions from the Botanical Laboratory, Vol. 4,  
No. 1,  
Contributions from the Zoological Laboratory, Vol. 16.

**Wistar Institute of Anatomy and Biology, Philadelphia,**  
Bulletins, Nos. 2 and 3.

**Zoological Society of Philadelphia,**  
39th Annual Report.

**Rhode Island—Agricultural Experiment Station, Kingston,**  
Annual Report, 1910,  
Bulletin 146.

**Roger Williams Park Museum, Providence,**  
Park Museum Bulletin, Vol. 3.

**South Carolina—American Association of Museums, Charleston,**  
Proceedings, Vol. 4.

**Charleston Museum, Charleston,**  
Bulletin, Vol. 7,  
Wayne, Birds of South Carolina.

**South Dakota—Agricultural Experiment Station, Brookings,**  
Bulletin 126.

**School of Mines, Rapid City,**  
Bulletin 9, Department of Geology.

**Texas—Academy of Science, Austin,**  
Transactions, Vol. 11.

**University of Texas, Austin,**  
Bulletin, Science Series, 16-20.

**Utah—Agricultural Experiment Station, Logan,**  
Bulletin 110.

**Deseret Museum, Salt Lake City,**  
Bulletin, Nos. 1 and 2, New Series.

**University of Utah, Salt Lake City,**  
Bulletin, Vol. 3, No. 3, Parts 1-2.

**Vermont—Agricultural Experiment Station, Burlington,**  
Bulletins 43, 76, 120, 136, 142, 145, 147, 148, 153, 154,  
156, 157,  
Circular 6.

**Geological Survey, Burlington,**  
Report, State Geologist, 1907-08, 1909-10.

**Virginia—Geological Survey, Charlottesville,**  
Bulletin 6.

**Washington—State Museum, Seattle,**  
Bulletin, No. 1.

**Washington, D. C.—Carnegie Institution,**  
Annual Report, 1910, Department of Marine Biology.

**Casey, Major Thomas L.,**  
Casey, Memoires on the Coleoptera, 1910-1911.

**Smithsonian Institution,**  
Annual Report, 1909,  
Bulletins, 30, Part 2, 73, 74 ,  
Harriman Alaska Expedition, Vols. 1-5, 8-13,  
Smithsonian Contributions to Knowledge, Vol. 27,  
Smithsonian Miscellaneous Collections, Vol. 58.

**United States Bureau of American Ethnology,**  
Annual Report, 27th,  
Bulletins, 37, 40, Part 1, 43-45, 50-51.

**United States Bureau of Fisheries,**  
Bulletins, Vols. 8, 20, 25-29,  
Documents, 604, 609, 622, 634, 643-645, 728-732,  
Reports, 1898, 1905, 1908, 1909,  
Revised Edition of the Fish Manual, 1903-04.

**United States Coast and Geodetic Survey,**  
Report of Superintendent, 1910.

**United States Commissioner of Education,**  
Report, Vol. 1 and 2, 1910.



**United States Department of Agriculture,**  
Bureau of Biological Survey, N. A. Fauna, Nos. 31-34,  
Bureau of Biological Survey, Bulletins 35-39, 97, 99, 103,  
Bureau of Biological Survey, Circulars, 74-84,  
Bureau of Biological Survey, Report of Chief, 1910,  
Bureau of Animal Industry, Bulletin 39, Parts 8-12, 20-  
25, 27-31.  
Bureau of Animal Industry, Circulars 159, 163, 172,  
174, 178,  
Bureau of Entomology, 34 Circulars,  
Bureau of Entomology, Report of Entomologist, 1910,  
Bureau of Plant Industry, 6 Circulars,  
Bureau of Soils, 38 Pamphlets and 15 Volumes,  
Experiment Station Record, Vols. 24-25,  
Farmers' Bulletin, 18 Pamphlets,  
Forest Service, 25 Pamphlets,  
Report of Secretary, 1910,  
Sudworth, Forest Trees of the Pacific Slope,  
Yearbook, 1910,

**United States Geological Survey,**  
Annual Report, 31st,  
Bulletins, 429-495,  
Mineral Resources of the United States, 1909, Parts 1-2,  
Monographs, 52,  
Professional Papers, 68, 70, 72, 73, 75,  
Water-Supply Papers, 253-277.

**United States National Museum,**  
Annual Report, 1910,  
Bulletins, 75, 76,  
Contributions from the United States Nat. Herbarium,  
Vol. 15,  
Proceedings, Vols. 37-40.

**United States Superintendent of Documents,**  
Elliott, A Report Upon the Conditions of Affairs in the  
Territory of Alaska.

**United States War Department,**  
Uniforms of the Army of the United States, plates,  
The Army of the United States, text and plates.

**Washington Academy of Sciences,**  
Journal, Vol. 1,  
Proceedings, Vol. 13.

**West Virginia—Agricultural Experiment Station, Morgantown,**  
Bulletin 130.

**Wisconsin—Brinckley, Dr. W. J., Milwaukee,**  
Brinckley, Physiology by the Laboratory Method.

**Burrill, Alfred C., Madison,**  
Burrill, The Tsetse Fly and Sleeping Sickness; Other In-  
sect Carriers of Disease,  
Burrill, The Purple Martin.

**City Service Commission, Milwaukee,**  
16th Annual Report.

**Commissioner of Fisheries, Madison,**  
Biennial Report, 1910.

**Muttkowski, Richard A., Milwaukee,**  
Collections Zoologiques du Baron Edm. de Selys Long-  
champs, Fasc. 31-32.

**Public Library, Milwaukee,**  
33rd Annual Report.

**Peckham, Dr. George W., Milwaukee,**  
68 Volumes and 297 Pamphlets on Spiders.

**School Board, Milwaukee,**  
Manual and Roster of Teachers, 1910-11.

**Sportsman Publishing Co., Milwaukee,**  
Outers' Book, Vols. 21, 22.

**State Historical Society, Madison,**  
Collections of the Wisconsin Historical Society, Vol. 19,  
Fitch, The Chaffanooga Campaign,  
Hurn, Wisconsin Women in the War,  
Proceedings, 1910.

**State of Wisconsin, Madison,**  
First Report of the Conservation Commission,  
Fish and Game Laws of Wisconsin, 1911,  
Wisconsin Arbor and Bird Day Annual, 1911.

**Stirn, August, Milwaukee,**  
Curtis, The Woody Plants of North Carolina,  
Emmons, Report of the N. C. Geological Survey,  
Goode, The Principles of Museum Administration,  
Hitchcock, Elementary Geology, 1847,  
Rules and Regulations of the American Museum of N. H.,  
Sitgreaves' Expedition, Zuni and Col. Rivers,

Stansbury, Exploration and Survey of the Valley of the  
Great Salt Lake of Utah, 1853.

Wilkes, Voyage of the United States Exploring Expedition,

Wisconsin Audubon Society for the Protection of Birds  
1897.

Stout, A. B., Madison,  
Stout, Prehistoric Earthworks in Wisconsin.

Wisconsin Academy of Sciences, Arts and Letters,  
Madison,  
Transactions, Vol. 16. Part 2.

Wisconsin Geological and Natural History Survey,  
Madison,  
Bulletins, 21, 22,  
Bulletin 19, Economic Series, No. 12.

Wisconsin Natural History Society, Milwaukee,  
Bulletin, Vol. 9.

Wisconsin State Board of Forestry, Madison,  
A Study of the Wisconsin Wood-Using Industries,  
Preliminary Report on Storage Reservoirs on the Wisconsin River, 1911,  
Report of State Forester, 1907-08, 1909-10,  
The Taxation of Forest Lands in Wisconsin.

Wyoming—Agricultural Experiment Station, Laramie,  
Bulletins 87, 88.

Alaska—Agricultural Experiment Station, Sitka,  
Annual Report, 1909,  
Bulletin 10.

Hawaii—Hawaii Agricultural Experiment Station, Honolulu,  
Annual Report, 1910,  
Bulletin 22,  
Press Bulletin 28.

Commissioners of Agriculture and Forestry, Honolulu,  
6th Report.

Porto Rico—Agricultural Experiment Station, Mayaguez,  
Annual Reports, 1909, 1910,  
Bulletin 11,  
Circular 13.

**Canada—Bureau of Mines, Victoria,**  
Preliminary Review and Estimate of Mineral Production  
for 1910.

**Canada Department of Agriculture, Ottawa,**  
Bulletin 52,  
Bulletin No. 1, Division of Entomology,  
Importance of Entomology in the Development of Canada,  
Report of Entomologist and Botanist, 1893-94, 1896-97,  
1900-06, 1909-10.

**Canadian Institute, Toronto,**  
Transactions, Vol. 9.

**Canada Department of Mines, Ottawa,**  
Annual Report of Minister of Mines, 1910,  
Contributions to Canadian Palaeontology, Vol. 1, Part 2;  
Vol. 2, Part 3.

**Department of Marine and Fisheries, Ottawa,**  
Bernier, Cruise of the Arctic, 1908-09,  
43rd Annual Report.

**Department of the Interior, Ottawa,**  
Annual Report, Topographical Surveys Branch, 1909-10.

**Entomological Society of Ontario, Guelph,**  
Canadian Entomologist, Vol. 43,  
41st Annual Report.

**Geological Survey of Canada, Ottawa,**  
Contributions to Canadian Palaeontology, Vol. 3, Parts  
2, 5.

**Hamilton Association for the Cultivation of Science,  
Literature and Art, Hamilton,**  
Journal and Proceedings, 1908-10.

**Hamilton Scientific Association, Hamilton,**  
Journal and Proceedings, 1907-08,  
Journal and Proceedings, Fifteenth Anniversary.

**Le Naturaliste Canadien, Quebec,**  
Le Naturaliste Canadien, Vol. 38.

**Natural History Society of New Brunswick, St. John.**  
Bulletin, Vol. 6, Part 3.

**Numismatic and Antiquarian Society, Montreal,**  
Journal, Vol. 8.

**Ontario Department of Agriculture, Toronto,**  
Bulletins 173, 188, 189, 190.

**Ottawa Field-Naturalists' Club, Ottawa,**  
Ottawa Naturalist, Vol. 25.

**Royal Society of Canada, Ottawa,**  
Proceedings and Transactions, Vols. 3-4, third series.

**University of Toronto,**  
Biological Series, No. 8,  
Geological Series, Nos. 6, 7.

**Mexico—Instituto Geologico de Mexico,**  
Boletin, Nos. 27-28.

**Instituto Medico Nacional, Mexico,**  
Anales, Tomo 11, No. 3.

**Museo Nacional de Historia, Mexico,**  
La Naturaleza, Tomo 1, Tomo 3, Nos. 1-2,  
Pteridografia del sur de Mexico, 1910.

**Sociedad Geologica Mexicana, Mexico,**  
Boletin, Tomo 7.

**Central America—Museo Nacional, San Salvador,**  
Anales, Tomo 5.

**South America—Museu Goeldi, Para,**  
Boletin, Vol. 6.

**Sociedad Cientifica Argentina, Buenos Ayres,**  
Anales, Tomos 70-72.

**Museu Paulista, Sao Paulo,**  
Revista, Vol. 8.

**Sociedad Scientifica, Sao Paulo,**  
Revista, 3-8.

**Centro de Ciencias, Letras e Artes, Campinas,**  
Revista, No. 25.

**Deutsch Wissenschaftliche Verein, Santiago,**  
Verhandlungen, Bd. 2, Heft 4; Bd. 3, Heft 1-4; Bd. 4,  
Heft 2-6; Bd. 5.

**Instituto Oswaldo Cruz, Rio de Janeiro,**  
Memorias, Tomos 1-3.

**Museo Nacional de Historia Natural, Buenos Aires,**  
Anales, Tomos 11, 13, 14.

**Africa—Geological Survey, Cape Town,**  
Geological Map of the Colony of the Cape of Good Hope,  
Sheets 32, 40.

**Geological Commission, Cape Town,**  
Annual Report, 14th,  
Sheet 11 (Clanivilliam); Sheet 13 (Beaufort West-Fra-  
serburg).

**Natal Government Museum, Pietermaritzburg,**  
Catalogue of a Collection of Rocks and Minerals from  
Natal and Zululand.

**South African Association for the Advancement of  
Science, Cape Town,**  
South African Journal of Science, Vols. 7-8.

**South African Museum, Cape Town,**  
Annals, Vols. 8-11.  
Report, 1909.

**Australia—Agricultural Gazette of N. S. W., Sydney,**  
Agricultural Gazette, Vol. 22.

**Australian Association for the Advancement of Sci-  
ence, Brisbane,**  
Report, Vol. 12.

**Australian Museum, Sydney,**  
Memoir 2, Nos. 1-2,  
Records, Vol. 8.

**Botanic Gardens and Government Domain, Sydney,**  
Report, 1909.

**Department of Agriculture, Victoria,**  
The Journal, Vol. 9.

**Department of Agriculture, Melbourne,**  
Reports, 1907-1910.

**Department of Mines, Sydney,**  
Annual Report, 1910,  
Mineral Resources, No. 13.

**Department of Public Instruction, Sydney,**  
Annual Report, 1909, Technological Museum.

**Field Naturalists Club of Victoria, Melbourne,**  
The Victorian Naturalist, Vols. 25-28.

**Geological Survey of Queensland**, Brisbane,  
Publications 222, 225, 226, 228, 229.

**Geological Survey of West Australia**, Perth,  
Annual Progress Reports, 1909-1910,  
Bulletins 36, 38, 39, 41.

**Government of South Australia**, Adelaide,  
Based on Report on Recent Development in Economic  
Geology,  
Handbook of South Australia, by David J. Gordon,  
Map of South Australia,  
Map of the Southern Portion of South Australia.

**Public Library, Museum and Art Gallery**, Adelaide,  
Protected Native Birds of South Australia,  
Report, 1909-10.

**Queensland Museum**, Brisbane,  
Annals, No. 10.

**Royal Anthropological Society**, Sydney,  
Science of Man, Vol. 13.

**Royal Geographical Society**, Brisbane,  
Queensland Geographical Journal, 25th Session.

**Royal Zoological Society of N. S. W.**, Sydney,  
Annual Reports, 31-32.

**Austria-Hungary—Academie des Sciences**, Cracovie,  
Bulletin, Serie A., Sciences Mathematiques, 1911,  
Bulletin, Serie B., Sciences Naturelles, 1911,  
Bulletin, Philologische Klasse, 1911.

**Deutscher Naturwissenschaftlicher und Med. Verein  
für Böhmen**, Prag,  
Lotos, Naturwissenschaftliche Zeitschrift, 1910.

**Königliche Böhmisches Gesellschaft der Wissenschaften**, Prag,  
Jahresbericht, 1910,  
Sitzungsberichte, 1910.

**K. K. Geologische Reichsanstalt**, Wien,  
Die Adamellogruppe bei Wilhelm Salomon,  
Jahrbuch, 61. Bd.,  
Verhandlungen, 1911.

**K. K. Naturhistorisches Hofmuseum**, Wien,  
Annalen, Bd. 24.

**K. K. Zoologisch-botanische Gesellschaft, Wien,**  
Verhandlungen, 1910.

**Landes-Museums-Verein fuer Vorarlberg, Bregenz,**  
47. Jahresbericht.

**Museum Francisco-Carolinum, Linz,**  
69. Jahresbericht.

**Naturforschender Verein, Brünn,**  
Ergebnisse der phaenologischen Beobachtungen aus  
Mähren und Schlesien,  
Verhandlungen, 48. Bd.

**Naturwissenschaftlicher - Medizinischer Verein, Inns-  
bruck,**  
Berichte, Jahrgang 32.

**Naturwissenschaftlicher Verein an der Universität  
Wien,**  
Mitteilungen, 8. Jahrgang.

**Naturwissenschaftliche Verein für Steiermark, Graz,**  
Mitteilungen, Bd. 46, 47.

**Siebenbürgischer Verein für Naturwissenschaften,  
Hermannstadt,**  
Verhandlungen and Mitteilungen, Bd. 59.

**Städtisches Museum Carolino-Augustum, Salzburg,**  
Jahresbericht, 1910.

**Ungarische Geologische Gesellschaft, Budapest,**  
Földtani Közlöny, Kötet, 41-42.

**Ungarischer Karpathen Verein, Iglo,**  
Jahrbuch, Jahrgang, 1911.

**Verein zur Verbreitung Naturwissenschaftlicher  
Kenntnisse, Wien,**  
Festschrift, 1910,  
Schriften, Bd. 50-51.

**Wissenschaftlicher Klub, Wien.**  
Jahresbericht, 1910-11,  
Monatsblätter, 32. Jahrgang.

**Belgium—Academie Royale de Belgique, Bruxelles,**  
Bulletin de la Classe des Sciences, 1911.

**Academie Royale des Sciences, Bruxelles,**  
Annuaire, 1911.



**Jardin Botanique de L'Etat, Bruxelles,**  
Bulletins, Vols. 1-3,  
Liste des Plantes Cultivees Dans Les Serres Chaudes et  
Coloniales.

**L'Institut Archeologique Liegeois, Liege,**  
Bulletin, Tome 39.

**Musee Royal D'Histoire Naturelles, Bruxelles,**  
Annales, Description des Ossements Fossiles, Tomes, 1-14.

**Societe Royale Zoologique et Malacologique, Bruxelles,**  
Annales, Annee 1909-1910.

**England—Bristol Museum and Art Gallery, Bristol,**  
Report for 1910.

**British Museum of Natural History, London,**  
Andrews, Catalogue of the Marine Reptiles of the Oxford  
Clay, Part. 1,  
Andrews, Catalogue of the Tertiary Vertebra of the  
Fayum, Egypt.  
Guide to the British Vertebrates,  
Guide to the Crustacea, Arachnida, Onychophora and  
Myriopoda,  
Guide to Mr. Worthington Smith's Drawings of Field  
and Cultivated Mushrooms and Poisonous or  
Worthless Fungi Often Mistaken for Mush-  
rooms.  
Memorials of Charles Darwin,  
Special Guide No. 5.

**Cardiff Naturalists Society, Cardiff,**  
Transactions, 1909.

**Leicester Museum and Art Gallery, Leicester,**  
18th Report of the Town Council.

**Liverpool Biological Society, Liverpool,**  
Proceedings and Transactions, Vols. 24-25.

**Liverpool Geographical Society, Liverpool,**  
Transactions, 1910.

**London County Council, London,**  
Handbook Nos. 9 and 10, Horniman Museum,  
Ninth Annual Report, Horniman Museum,

**Norwich Castle Museum, Norwich,**  
Report, Castle Museum Committee, 1910,  
Third Annual Report, Proceedings of the Norwich Museum Association.

**Sotheby, Wilkinson & Hodge, London,**  
Catalogue of Ancient Indian Gold Ornaments and Pottery  
discovered in South America,  
Description and Details of Articles recovered from the  
Sacred Lake of Guatavita, Rep. of Col., South  
America.

**University of Liverpool,**  
Report, Lancashire Sea Fisheries Laboratory, 1910.

**Viscount Dillon, London,**  
Illustrated Guide to the Armouries, Tower of London.

**France—Dollfus, Adrien, Paris,**  
La Feuille des Jeunes Naturalistes, 41. Année.

**Janet, Charles, Limoges,**  
Janet, Sur L'Ontogenese de L'Insecte,  
Janet, Sur La Morphologie de L'Insecte,  
Janet, Sur La Parthenogenese Arrhenotoque,  
Janet, Sur La Morphologie des Membranes Basales de  
L'Insecte.  
Janet, Sur un Nematode qui se Developpe dans la Tete  
de la Formica.  
Janet, Note sur la Phylogenese de L'Insecte.

**Societe D'Emulation du Doubs, Besancon,**  
Memoires, 1909.

**Societe des Sciences, Nancy,**  
Bulletin, Tome 11.

**Societe des Sciences Naturelles, Charlon-sur-Saone**  
Bulletin, Tome 16.

**Societe D'Etudes des Sciences Naturelles, Nimes,**  
Bulletin, Tome 37.

**Societe D'Etudes Scientifiques, Angers,**  
Bulletin, Année 1909.

**Societe D'Histoire Naturelle, Macon,**  
Bulletin, Trimestriel, Vol. 4.

**Societe Entomologique de France**, Paris,  
Bulletin, 1911.

**Societe Geologique du Nord**, Lille,  
Annales, 38.

**Societe Zoologique de France**, Paris,  
Bulletin, Tome 36.

**Germany**—**Altertums-gesellschaft**, Insterburg,  
Festschrift zum 30. Stiftungsfeste,  
Jahresbericht, 1910.

**Badische Landesverein für Naturkunde**, Freiberg,  
Mitteilungen, 1911.

**Berliner Entomologische Verein**, Berlin,  
Zeitschrift, 55-56. Bd.

**Botanische Staatsinstitute**, Hamburg,  
Jahresberichte, 1908, 1909,  
Klebahn, Krankheiten des Selleries,  
Kükenthal, Pennatuliden der Deutschen Tiefsee Expedition,  
Mitteilungen, 1908, 1909,  
Pohl, Beiträge zur Kenntnis des Os penis der Prosimier,  
Zacher, Die Systematik der Protodermaptera.

**Botanischer Verein der Provinz Brandenburg**, Berlin,  
Verhandlungen, 52. Jahrgang.

**Deutscher Verein zum Schutze der Vogelwelt**, Gera,  
Ornithologische Monatsschrift, 36. Jahrgang.

**Entomologischer Verein**, Stettin,  
Stettiner Entomologische Zeitung, 72. Jahrgang.

**Fischer, Gustav**, Jena,  
Broch, Pennatulida,  
Kükenthal, Alcyonarien von der Aru- und Kei-Inseln,  
Kükenthal und Broch, System und Stammesgeschichte  
der Seefedern,  
Pax, Diagnosen neuer westindischer Actinien,  
Pohl, Das Os penis der Carnivoren einschliesslich der  
Pinnipedier,  
Sterling, Beiträge zur Kenntniss der Muskulatur des  
Schultergürtels und der Vorderextremität bei  
Zahn- und Bartenwalen,  
Zacher, Studien über das System der Protodermapteren.

**Friedländer und Sohn, Berlin,**  
Entomologische Litteraturblätter, 1911.

**Geographische Gesellschaft, Hannover,**  
12. Jahresbericht.

**Geographische Gesellschaft und des Naturhistorisch  
Museum, Lübeck,**  
Mitteilungen, Heft 24.

**Gesellschaft für Erdkunde, Leipzig,**  
Mitteilungen, 1909-1910.  
Wissenschaftliche Veröffentlichungen, 7. Bd.

**Gesellschaft Naturforschender Freunde, Berlin,**  
Sitzungsberichte, 1909-1910.

**Gesellschaft von Freunden der Naturwissenschaft,**  
Gera,  
Jahresberichte, 51-52.

**Gesellschaft zur Beförderung der Gesamten Natur-  
wissenschaften zu Marburg,**  
Sitzungsberichte, 1910.

**Historischer Verein, Brandenburg,**  
Jahresberichte, 41-42.

**Historischer Verein für Schwaben und Neuburg, Augs-  
burg,**  
Zeitschrift, 36. Jahrgang.

**Historischer Verein von Oberpfalz und Regensburg,**  
Verhandlungen, 61-62. Bd.

**Internationaler Entomologen-Bund, Guben,**  
Zeitschrift, 4-5. Jahrgang.

**Internationaler Entomologischer Verein, Frankfurt,**  
Fauna Exotica, Jahrgang 1.  
Zeitschrift, 25. Jahrgang.

**International Entomological Society, Stuttgart,**  
Societas Entomologia, 26. Jahrgang.

**Kgl.-Bayer. Akademie der Wissenschaften, München,**  
Günther, Die Korallenbauten als Objekt wissenschaft-  
licher Forschung in der Zeit vor Darwin,  
Rothpletz, Meine Beobachtungen über den Sparagmit und  
Birikalk am Mjösen in Norwegen.

**Kgl.-Preuss, Akademie der Wissenschaften, Berlin.**  
Sitzungsberichte, 1891-1895, 1898, 1911.

**Kgl.-Sächs. Gesellschaft für Botanik und Gartenbau,**  
Dresden,  
Abhandlungen und Sitzungsberichte, 1909-10, 1910-11.

**Kgl. Zoologisches Institut und Museum, Breslau,**  
Brandt und Apstein, Nordisches Plankton,  
Gruhl, Beiträge zur Anatomie und Physiologie der Ceta-  
ceen-nase,  
Jahresbericht für 1907-08, Schlesischer Lehrer-Verein  
für Naturkunde,  
Niedermeyer, Studien über den ban von Pteroides gri-  
seum (Bohadsch),  
Pohl, Eine Höhenvarietät von Siamanga syndactylus  
Desm.,  
Scholz, Die schlesischen Odonaten.

**Kgl. Zoologisches Museum, Berlin,**  
Bericht, 1910.

**Mineralogische Institut der Universität Bonn,**  
Pupke, Die optischen Anomalien bei Apatit.

**Museum für Natur- und Heimatkunde, Magdeburg,**  
Abhandlungen und Berichte, Bd. 2.

**Nassauischer Verein für Naturkunde, Wiesbaden,**  
Jahrbücher, Jahrgang 63.

**Naturforschende Gesellschaft, Emden,**  
Jahresberichte, 94, 95.

**Naturforschende Gesellschaft, Freiburg,**  
Berichte, Bd. 13-16.

**Naturforschende Gesellschaft, Bamberg,**  
21. Bericht.

**Naturforschende Gesellschaft des Osterlandes, Alten-  
burg,**  
Mitteilungen aus dem Osterlande, 14. Bd.

**Naturhistorische Gesellschaft, Colmar,**  
Katalog der Bibliothek,  
Mitteilungen, 10. Bd.

**Naturhistorisch-Medizinische Verein, Heidelberg,**  
Verhandlungen, 11. Bd.

Naturhistorische Gesellschaft, Hannover,  
Jahresbericht, 58-59.

Naturhistorische Gesellschaft, Nürnberg,  
Abhandlungen, 1909.

Naturhistorischer Verein, Bonn,  
Sitzungsberichte, 1910,  
Verhandlungen, 67. Jahrgang.

Naturwissenschaftliche Gesellschaft "Isis", Dresden,  
Sitzungsberichte und Abhandlungen, Jahrg. 1910, 1911.

Naturwissenschaftlicher Verein, Karlsruhe,  
Verhandlungen, 23. Bd.

Naturwissenschaftlicher Verein, Osnabrück,  
17. Jahresbericht.

Naturwissenschaftlicher Verein, Hamburg,  
Abhandlungen, Bd. 19, Hefte 3-5.  
Verhandlungen, 1909, 1910.

Naturwissenschaftlicher Verein, Düsseldorf,  
Festschrift, 1884-1909,  
Mitteilungen, 5. Heft.

Naturwissenschaftlicher Verein, Regensburg,  
Berichte, 12. Heft.

Naturwissenschaftlicher Verein, Landshut,  
Berichte, 19.

Naturwissenschaftliche Verein der Rheinpfalz, Dürk-  
heim,  
Mitteilungen der Pollichia, 67. Jahrgang.

Naturwissenschaftliche Verein des Regierungsbezirks,  
Frankfurt,  
Helios, 26. Bd.

Naturwissenschaftliche Verein für das Fürstentum,  
Lüneburg,  
Jahreshefte, 18.

Naturwissenschaftliche Verein für Schwaben und  
Neuburg, Augsburg,  
Berichte, 39-40.

Naturwissenschaftliche Verein für Schleswig-Holstein,  
Kiel,  
Schriften, Bd. 15.

Oberlausitzische Gesellschaft der Wissenschaften,  
Görlitz,  
Neues Lausitzisches Magazin, Bd. 86.

Oldenburger Verein für Altertumskunde und Landes-  
geschichte, Oldenburg,  
Jahrbuch, 19. Bd.

Ornithologische Gesellschaft in Bayern, München,  
Verhandlungen, Bd. 10.

Ornithologische Verein, Stettin,  
Zeitschrift für Praktische Geflügelzucht und Vogel-  
kunde,  
35. Jahrgang.

Physikalisch - ökonomische Gesellschaft, Königsberg,  
Schriften, 50-51, Jahrgang.

Preussischer Botanischer Verein, Königsberg,  
Jahresbericht, 1909.

Schroeder, Dr. Christoph, Berlin-Schöneberg,  
Zeitschrift für Wissenschaften Insektenbiologie, Bd. 7.

Schlesische Gesellschaft für Vaterländische Cultur,  
Breslau,  
87. Jahresbericht.

Senckenbergische Naturforschende Gesellschaft,  
Frankfurt,  
Karsch, Odonaten.

Thüringischer Botanischer Verein, Weimar,  
Mitteilungen, 26, 28. Heft.

Verein der Freunde der Naturgeschichte, Güstrow,  
Archiv, 1910.

Verein für Erdkunde, Dresden,  
Mitteilungen, Bd. 1-2.

Verein für Erdkunde, Darmstadt,  
Notizblatt, 1909, 1910.

**Verein für Geschichte und Altertumskunde Westfalens und des Landes-Museums der Provinz Westfalen, Münster,**  
Mitteilungen, 3 Jahrgang.

**Verein für Geschichte der Stadt Nürnberg,**  
Jahresbericht, 1910,  
Mitteilungen, 19. Heft.

**Verein für Naturkunde, Zwickau,**  
Jahresberichte, 36-39.

**Verein für Naturkunde, Cassel,**  
Festschrift, 1836-1911.

**Verein für Naturwissenschaften, Braunschweig,**  
16. Jahresbericht.

**Verein für Naturwissenschaftliche Unterhaltung, Hamburg,**  
Verhandlungen, 14. Bd.

**Verein für Schlesische Insektenkunde, Breslau,**  
Jahresheft, Heft 3, 4.

**Verein zum Schutze und zur Pflege der Alpenpflanzen, Bamberg,**  
10. Bericht.

**Westfälischer Provinzial-Verein, Münster,**  
38. Jahresbericht.

**Westpreuss. Botanisch-Zool. Verein, Danzig,**  
Berichte, 31-32.

**Wetteranische Gesellschaft, Hanau.**  
Berichte, 1903-1909.

**Zoologisches Museum, Berlin,**  
Bericht, 1909,  
Mitteilungen, Bd. 5.

**India—Indian Museum, Calcutta,**  
Annual Reports, 1909-10, 1910-11.

**Royal Botanic Garden, Calcutta,**  
Records of the Botanical Survey of India, Vol. 5.

**Ireland—Belfast Naturalists' Field Club, Belfast,**  
Annual Report and Proceedings, Vol. 6, Series 2, Part 4.



**Belfast Natural History and Philosophical Society,**  
Belfast,  
Report and Proceedings, 1909-10.

**National Museum of Science and Art, Dublin,**  
General Guides to the Art, Irish Antiquities and Anglo-  
Irish Coins Collections,  
Museum Bulletin, Parts 1-3,  
Report, 1909-10.

**Royal Irish Academy, Dublin,**  
Proceedings, Vols. 29, 31.

**Royal Zoological Society, Dublin,**  
79th Annual Report.

**Italy—Musei di Zoologia ed Anatomia Comparata, Torino,**  
Bullettino, Vol. 25.

**Royal Scuola Superiore d' Agricoltura, Portici,**  
Rendiconto, Vols. 13, 14.

**Royal Scuola Superiore d' Agricoltura, Portici,**  
Bollettino, Vols. 4-5.

**Societa Zoologica Italiana, Roma,**  
Bollettino, Vol. 11, Fasc. 7-12; Vol. 12.

**Japan—Sapporo Natural History Society, Sapporo,**  
Transactions, Vol. 3.

**Tokyo Botanical Society, Tokyo,**  
The Botanical Magazine, Vol. 25.

**Netherlands—Geologisch Reichs-Museum, Leiden,**  
Sammlungen, Bd. 1, Heft 9-10; Bd. 2, Heft 3.

**Rijks Ethnographisch Museum, Leiden,**  
Verslag, 1908-09, 1909-10.

**Rijks Herbarium, Leiden,**  
Mededeelingen, 1910.

**New Zealand—Department of Lands and Surveys, Wellington,**  
Cockayne, Report on the Sand Dunes of N. Z.

**Dominion Museum, Wellington,**  
Bulletin, No. 3,  
Hand-List of certain Books and Papers relating to the  
Maori of N. Z.

**Norway—Bergens Museum, Bergen,**

Aarbog, 1910,

Aarsberetning, 1909, 1910.

**Stavanger Museum, Stavanger,**

Aarshefter, 1909.

**Tromsø Museum, Tromsø,**

Aarsberetning, 1908, 1909,

Aarshefter, 1907-1909.

**Videnskabs-Selskabet, Christiania,**

Forhandlinger, 1909, 1910,

Skrifter, 1909, 1910.

**Portugal—Societe Portugaise des Sciences Naturelles, Lisbonne,**

Bulletin, Vol. 4.

**Russia—Gesellschaft für Geschichte und Altertumskunde der Ostsee-provinzen Russlands, Riga,**

Mitteilungen aus der livländischen Geschichte, 21. Bd.,

Sitzungsberichte, 1910.

**Jardin Botanique, Tiflis,**

Catalogue, Vol. 9, Nos. 5-6,

Moniteur, 1911, Liv. 19.

**Jardin Imperial Bontanique, St. Petersburg,**

Bulletin, Tome 11.

**Societe Imperiale des Naturlistes, Moscou.**

Bulletin, 1909, 1910,

Nouveaux Memoires, Tome 16, Liv. 1.

**Scotland—Botanical Society of Edinburgh,**

Transactions and Proceedings, Vol. 25.

**Edinburgh Geological Survey, Edinburgh,**

Transactions, Vols. 1-9.

**Natural History Society of Glasgow,**

The Glasgow Naturalist, Vol. 2.

**Royal Scottish Museum, Edinburgh,**

Reports for 1909, 1910.

**Spain—Real Academia de Ciencias, Madrid,**

Memorias, Tomes 14-15,

Revista, Tomo 9.

Real Sociedad Espanola Historia Natural, Madrid,  
Boletin, Tome 11.

Sweden—Entomologiska Föringen, Stockholm,  
Entomologisk Tidskrift, Arg. 31.

Kongl. Vitterhest Historie och Antikvitets Akademien,  
Stockholm,  
Antikvarisk Tidskrift, 19. Delen,  
Fornvännen Meddelanden, 1910.

University of Upsala, Upsala,  
Bulletin of the Geological Institution, Vols. 9-10,  
200. Aarsjubileum.

Switzerland—Aargauische Naturforschende Gessellschaft, Aarau,  
Mitteilungen, 11. Heft.

Geographisch-Ethnographische Gesellschaft, Zürich,  
Jahresbericht, 1909-10.

Naturforschende, Gesellschaft, Basel,  
Verhandlungen, Bd. 21.

Naturforschende Gesellschaft, Bern,  
Mitteilungen, 1909, 1910.

Naturforschende Gesellschaft, Luzern,  
Mitteilungen, Heft 1-4.

Naturforschende Gesellschaft, Zürich,  
Vierteljahrsschrift, 55. Jahrgang.

Naturforschende Gesellschaft Graubündens, Chur,  
Jahresbericht, 52. Bd.

Naturwissenschaftliche Gesellschaft, Winterthur,  
Mitteilungen, 8. Heft.

St. Gallische Naturwissenschaftliche Gesellschaft, St.  
Gallen,  
Jahrbuch, 1910.

Thurgauische Naturforschende Gesellschaft, Frauen-  
feld,  
Mitteilungen, 19. Heft.

Ornithologische Gesellschaft, Basel,  
Jahresbericht, 1910.

**Societe Neuchateloise des Sciences Naturelles, Neu-  
chatel,**  
Bulletin, Tome 37.

**Societe Vaudoise des Sciences Naturelles, Lausanna,**  
Bulletin, Vol. 47.

**West Indies—Imperial Agricultural Department, Barbados,**  
West Indian Bulletin, Vol. 11.

#### By Purchase.

- American Anthropologist, Vol. 13.  
 American Entomological Society, Transactions, Vol. 37.  
 American Journal of Archaeology, Vol. 15.  
 American Naturalist, Vol. 45.  
 A. O. U. Check-List of N. A. Birds, 1910; and abridged Check-  
 List.  
 Andre, Species des Hymenopters, Fasc. 107-108.  
 Archaeological Institute of America, Bulletin, Vol. 2.  
 Archer, Natural History of Coal, 1911.  
 Auk, The, Vol. 28.  
 Beach, The Indian Miscellany, 1877.  
 Bent, The Ruined Cities of Mashonaland, 1892.  
 Bartholomew's Physical Atlas, Zoogeography, Vol. 5.  
 Bird-Lore, Vol. 13.  
 Blatchley, The Coleoptera or Beetles Known to Occur in Indiana.  
 1910.  
 Bleek, Hottentot Fables and Tales, 1864.  
 Botanical Gazette, Vols. 51-52.  
 Brooklyn Entomological Society, Bulletins, Vols. 1-7.  
 Butler, Foreign Finches in Captivity, 1899.  
 Cattell, American Men of Sciences, 1910.  
 Coleopterorum Catalogus, Parts 18-37.  
 Crooke, Northern India, 1904.  
 Dampier, Dampier's Voyages, Vols. 1-2.  
 Darwin, Expressions of the Emotions, 1872.  
 Das Tierreich, Lief. 24, 26, 27, 29.  
 De Candolle, Origin of Cultivated Plants, 1885.  
 Dellenbaugh, The North Americans of Yesterday, 1902.  
 Dugmore, Camera Adventures in the African Wilds, 1910.  
 Encyclopaedia Britannica, Vols. 1-28.  
 Engler and Prantl, Die Natürlichen Pflanzenfamilien, Lief. 241-  
 244.

- Entomological News, Vols. 8 and 22.  
Frazer, Adonis Attis Osiris, 1907.  
Garnier, Dictionnaire de La Ceramique, 1907.  
Genera Insectorum, Fasc. 80, 108-112.  
Grinnell, Pawnee Hero Stories and Folk-Tales, 1889.  
Grinnell, Blackfoot Lodge Tales, 1892.  
Haeckel, The Evolution of Man, Vols. 1-2.  
Hewitt, The Native Tribes of South-East Australia, 1904.  
Hill-Tout, British North America, 1907.  
Ingersoll, Animal Competitors, 1911.  
Journal of Economic Entomology, Vol. 4.  
Journal of the N. Y. Entomological Society, Vol. 19.  
Keeble, Plant-Animals, 1910.  
Le Conte & Horn, The Rhynchophora of America, No. of Mexico, 1876.  
Lounsbury, A Guide to the Wild Flowers.  
Lyell, Antiquity of Man, 1873.  
Michelet, The Bird, 1869.  
Mississippi Valley Historical Association, Proceedings, 1909-10.  
Moorehead, Warren K., The Stone Age in North America, Vols. 1-2, 1910.  
Museums Journal, Vol. 11.  
Museumskunde, Band 7.  
Nautilus, The, Vol. 25.  
Osborn, The Age of Mammals, 1910.  
Pitt-Rivers, A., Antique Works of Art from Benin, 1900.  
Psyche, Vols. 1-4, 6, 7, 18.  
Rau, Early Man in Europe, 1876.  
Records of the Past, Vol. 10.  
Rivers, W. H. R., The Todas, 1906.  
Rink, Tales and Traditions of the Eskimo, 1865.  
Schweinfurth, The Heart of Africa, Vols. 1-2.  
Science, Vols. 33-34.  
Seward, Fossil Plants, Vols. 1-2.  
Shaler, Aspects of the Earth, 1889.  
Shaler, Domesticated Animals, 1907.  
Skeat & Blagden, Pagan Races of the Malay Peninsula, Vols. 1-2, 1906.  
Spencer & Gillen, The Northern Tribes of Central Australia, 1904.  
Standard Dictionary, 1910.  
Stanley, In Darkest Africa, Vols. 1-2, 1890.  
Stevens, An Illustrated Guide to Flowering Plants, 1910.  
Stow, The Native Races of South Africa, 1905.

Thomas, Natives of Australia, 1906.

Topinard, Anthropology, 1890.

Trouessart, Catalogus Mammalium, Tomes 1-2 and Supplement.

Trübner, Minerva, Jahrbuch der Gelehrten Welt, 1909-10.

Van Hise, The Conservation of Natural Resources in the United States, 1910.

Werner, British Central Africa, 1906.

Wytsman, Genera Insectorum, Fasc. 112b-121.

Zoe, A Biological Journal, Vols. 3-5.

Zoologisches Adressbuch, 1911.



